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ABSTRACT

This paper (1) examines some of the problems confronting persons doing research on adult educators; (2) presents a conceptual framework for clarifying researchable relationships among several selected major variables: and (3) suggests directions and approaches that appear promising to the authors. The first of three parts contains a brief explanation of several characteristics of the field that limit adult education research. It is a description of several field characteristics that have inhibited research in adult education in the past. The second part contains a discussion of variables that appear to be essential to further research. These variables are then used to construct a map or conceptual framework that provides for the construction of a research agenda. The third part of the paper discusses several strategies and methodological approaches appropriate for studying relationships that appear to be most important for theory building. A variety of research approaches is recommended and a reference list is included. (KC)

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ADULT EDUCATOR EFFECTIVENESS: A CONCEPTUAL FRAMEWORK FOR RESEARCH DIRECTIONS

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U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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INTRODUCTION

General knowledge about adult educators is lacking, yet they are the central performers in adult education programs, which have rapidly expanded in recent years in American society. Data are sparce for questions such as: Who are the adult educators in the USA? How are they recruited, screened, selected, trained, evaluated, and rewarded by the various sponsoring organizations or informal networks within which they serve? What orientations do they bring with them as they undertake their work in a variety of settings? What roles and functions do they perform and with what effect? To what philosophies of education, program goals, and objectives do they give their loyalties, and how do these affect their performance? To what extent do they use any intentional learning strategies in their interactions with learners? Is certification of adult educators desirable for the field? What staff development efforts are likely to improve adult educator performance? How much of the difference between effective and noneffective adult learning can be explained in terms of the educational and experiential background of the adult educator? These are just a few of the initial questions which confront anyone who is curious about the field and is concerned about policy decisions which may affect the quality of the educational experiences of millions of persons. The cost to society is too high to continue to invest vast resources of human energy and money without an adequate knowledge base from which to make policy decisions at the national, state, and local levels. An extensive, more systematic research effort is essential.

The central purpose of this paper is: 1) to examine some of the problems confronting those who desire to engage in research which focuses on the adult educator; 2) to present a conceptual framework for clarifying researchable relationships among several selected major variables; and 3) to suggest directions and approaches that appear promising to the authors. Structurally, this paper is divided into three parts. The first part contains a brief explanation of several characteristics of the field that limit adult education research. The analysis of research problems makes no pretense of being either comprehensive or exhaustive. Rather, what is intended is a description of several field characteristics that have inhibited research in adult education in the past. The second part contains a discussion of variables that appear

to be essential to further research. These variables are then used to contruct a map or conceptual framework, which provides for the construction of a research agenda. The third part of the paper discusses several strategies and methodological approaches appropriate for studying relationships that appear to be most important for theory building.

FIELD CHARACTERISTICS THAT HAVE INHIBITED RESEARCH

Although the influence of adult education on citizens and society continues to increase in scope and depth, knowledge about the characteristics and competencies of effective adult educators and what variables affect their performance has certainly not increased. A variety of reasons can be cited, among them:

The organizational structure of the field,
The lack of common descriptors,
The diversity of programs, roles of educators and learners,
The focus of graduate programs,
The distribution of research money in the field of education, and
The lack of a research tradition.

The remainder of this section will further explain each of the reasons mentioned above.

ORGANIZATIONAL STRUCTURE OF THE FIELD

Unlike primary, secondary, and higher education, which can be identified by fairly common structural characteristics across communities in the United States, the field of adult education can be characterized as a plethora of marginal organizational arrangements that have few common structural characteristics. In addition, these structures are called hundreds of different names in different parts of the country. Few strong organizational ties exist to unite the many forms. One effect of this situation is that research tends to be conceptualized within quite unique structures, and few comparisons are made across structures. The competition among providers further complicates the research process, especially in access to data. Conceptualizations that allow the researcher to codify and rationalize research findings from different provider organizations are necessary.

THE LACK OF COMMON DESCRIPTORS

Another characteristic of the field of adult education that has limited research is the lack of common descriptors or agreement on basic usages and definitions of terms (Broschart, 1976). As a result, effective communication is limited among all relevant parties, including legislators, administrative units, local educational agencies, postsecondary institutions, providers other than formal education institutions, practitioners, the public at large, as well as researchers. A failure to perceive commonness has proliferated jargon and has diffused political support for research funds. As a consequence, in the past, few data have been collected on a national, regional, state, or local basis in a systematic way. Benchmark statistical data are relatively nonexistent, making historical judgments about scope and extent of practice relatively weak. This situation in adult education is in the process of being addressed by the National Center for Higher Education Management Systems in conjunction with the National Center for Education Statistics.

DIVERSITY OF PROGRAMS, ROLES OF EDUCATORS, AND LEARNERS

In elementary, secondary, and higher education, there is a general understanding about the content to be taught in formal schooling. Granted, a great deal of variety exists as a result of local design, state regulation, and the particular interests of teachers and professors. However, some curricular standards are available for making judgments about gross inadequacies when accrediting schools and institutions of higher education. In adult education, the opposite of standardization is the rule. The level of detail, depth, and complexity for any content area may vary greatly for the same content area taught by several sponsoring organizations within the same community let alone among other communities. Little is known about the extent and nature of this variety on a large scale.

Similarly, little is known about the quality of instruction across the many program areas. Adult educators, especially those serving in nonformal educational settings, perform functions that are quite diverse from those typically performed by educators serving in school or formal educational settings. The degrees of professionalization also vary, from the volunteer to the highly trained, full-time practitioner. In addition, complexity is further compounded because adult learners tend to be more heterogenous than learners in elementary, secondary, and higher education due to the accumulation of diverse and personal experiences.

The effect on research of this diversity of program implementation has been considerable. Research has been limited, for the most part, to descriptions of cases and small subsets of the total system. Research problems tend to be defined as relating to specific institutional settings rather than to multiple institutional settings across program areas. Few studies address generic hypotheses across various types of institutions. As a result, there are serious problems in codifying and generalizing findings beyond a limited case or single institutional study. The diffusion of findings also has been made more difficult because the users are identified with hundreds of different types of provider organizations, rather than one general type as in elementary, secondary, and higher education.

FOCUS OF GRADUATE PROGRAMS

Graduate schools of education have been a traditional source of educational research. However, most graduate programs in education have emphasized research related to formal schooling and only marginally have dealt with specifically adult education research issues. In the past, adult education graduate students have, for the most part, been recruited from the public schools, cooperative extension, university extension, and community colleges (Griffith, 1974). More recently, the number of graduate programs in adult education has been on the increase in response to internal institutional pressures for maintaining graduate student enrollments and the external interest of many persons who seek to enter a rapidly growing field of practice. This increased enrollment has resulted primarily in masters degree level students. Because of typical graduate student backgrounds and the level of the degree desired, research interests have tended to focus on a limited number of provider institutions and on studies that usually have an applied research intent. As a result, adult education research has experienced conflicting demands related to its dual nature as a field of practice and a social science-based research activity. The field of practice demands education for leadership and applied research, while the social science research activity awaits theoretically based research.

THE DISTRIBUTION OF RESEARCH MONEY IN THE FIELD OF EDUCATION

Until the Adult Basic Education Act, comparatively little federal funding went into adult education except for the Cooperative Extension Service, military education, and educational benefits for veterans. Research tended to be

supported by foundations or by universities sponsoring student research. More recently, federal research funds for adult education have increased due to program evaluation requirements for federally funded programs in many governmental departments. These requirements also have influenced the research agenda for the field in the direction of evaluative research. In addition, the National Institute of Education has recently conceptualized a research agenda that now includes adult education researcher as part of its focus. In short, for a variety of reasons, the bulk of educational research funds have been spent in studying the education of children and youth in schools, relatively few research dollars have been spent on the rapidly increasing field of adult education. Although the National Council on Adult Education (1976, p. 17) has recommended increased funds for research in adult education, the total amount of funds to date has been comparatively small.

LACK OF A RESEARCH TRADITION

According to Laudan a research tradition is:

> ... a set of general assumptions about the entities and processes in a domain of study, and about the appropriate methods to be used for investigating the problems and constructing the theories in that domain (1977, p. 81).

Laudan further states that the roles of a research tradition are:

1) to delimit at least partially and in outline the domain of application of its constituent specific theories;
2) to foster consonance among its constituent theories by focusing conceptual problems;
3) to provide significant guidelines about how its constituent theories can be modified and transformed so as to improve its problem solving capacity; and
4) to rationalize or justify its constituent theories. It does this by proving assumptions about causal processes and entities, whose existence and operation are taken as a given by specific theories.

It doesn't take a serious student long to discover that in education as a whole, and in adult education in particular, well-defined research traditions are lacking. Indeed, Schutz, when advising the U.S. National Institute of Education, suggests:

> It is a disservice to continue to pile up hundreds of isolated studies with findings that cannot be combined for analysis due to incompatibility of research design. Before the staggeringly large number of uncodified

> educational studies can be identified and integrated, a better understanding of knowledge synthesis must be gained (1977, p. 4).

According to Little, a research tradition may be starting to emerge in the field of adult education:

> Although adult education is in an incipient stage of development it shows signs of moving out of this state. Despite the fact a vast quantity of substantive knowledge about adult education has accumulated, much has not been codified and too little has entered the field.
>
> Energy should be allocated to development of "research traditions" to shape future research. The future should yield a codifiable product (1978, p. 8).

The current situation clearly calls for new ways to provide conceptual frameworks that can move research into codifiable directions. Although past research has been primarily descriptive in nature, several researchers (Knowles, 1973; Houle, 1974; Kreitlow, 1974; Knox, 1977) have produced a body of knowledge that may constitute emerging research traditions. However, few attempts have been made to provide explanations from a theoretical perspective. Present research reflects the emergence of some connected concepts or families of concepts that are beginning to form an aggregate. However, these emerging concepts will probably not have the same empirical range of application or be logically interdependent. Although research in adult education may never reach the dream of a stable, integrated, unified, common frame of reference, researchers must still stretch forward and go beyond the present state of theoretical anarchism to create some holistic maps for promising research which can further contribute to an emerging research tradition .

A CONCEPTUAL FRAMEWORK FOR CLARIFYING RESEARCHABLE RELATIONSHIPS

Although the authors began the task of conceptualizing this paper with a focus on educators, it soon became clear that the construction of a larger map of variables was required. Specifically, the characteristics of adult educators as a research focus can be viewed as both dependent and independent variables within an ecological perspective (Bronfenbrenner and Hamilton, 1978; Ogbu, 1978). The following rationale led to the decision to construct a saturated variable approach as a springboard for viewing variables in multi combinations.

First of all, educators do not facilitate learning in closed systems. Their tasks are adjunct to the learners' and the educators' political, historical, cultural, and social environment. This is especially true for adult education, which is a part-time activity for adult learners and, in most cases, for adult educators. It is foolish to discuss effectiveness in adult education without considering the various ways that political, cultural, and social factors define the nature of effectiveness for each specific situation involving learners of various socioeconomic, ethnic, and religious backgrounds. Moreover, educator effectiveness is defined quite differently when viewed through various philosophies of education with their accompanying purposes, goals, and objectives. Also, learning theories and their concomitant educational strategies, usually incorporated in unexamined assumptions on the part of adult educators, are assumed to affect learning outcomes. Another essential variable is the nature and extent of financial and physical resources available to the adult educator for working with learners. The subject matter, also, should be viewed as a variable in the teaching results of adult educators. Certainly, the characteristics of adult learners themselves must be considered as important in determining the effectiveness of adult educators. The roles performed by both learners and educators have a profound affect on outcomes as well. In addition, activity structures combined with roles most certainly affect the results of adult education programs. All of these variables are perceived to have some influence on the effectiveness of adult educators. Through the use of several systems and theory construction concepts the above variables were depicted as relating to each other (Laszlo, 1972; Blalock, 1969) as shown in figure 1: Conceptural Framework for Clarifying Researchable Relationships in the Provision of Adult Education (p. 8). This framework can be used to classify past research in the field of adult education by examining the various combinations of variables used in each study. It also can be used to pose researchable questions that arise when relationships among the selected variables are considered systemmatically. Also, this framework may be useful in revealing where research relationships have been least addressed and where research might make a contribution to theory construction.

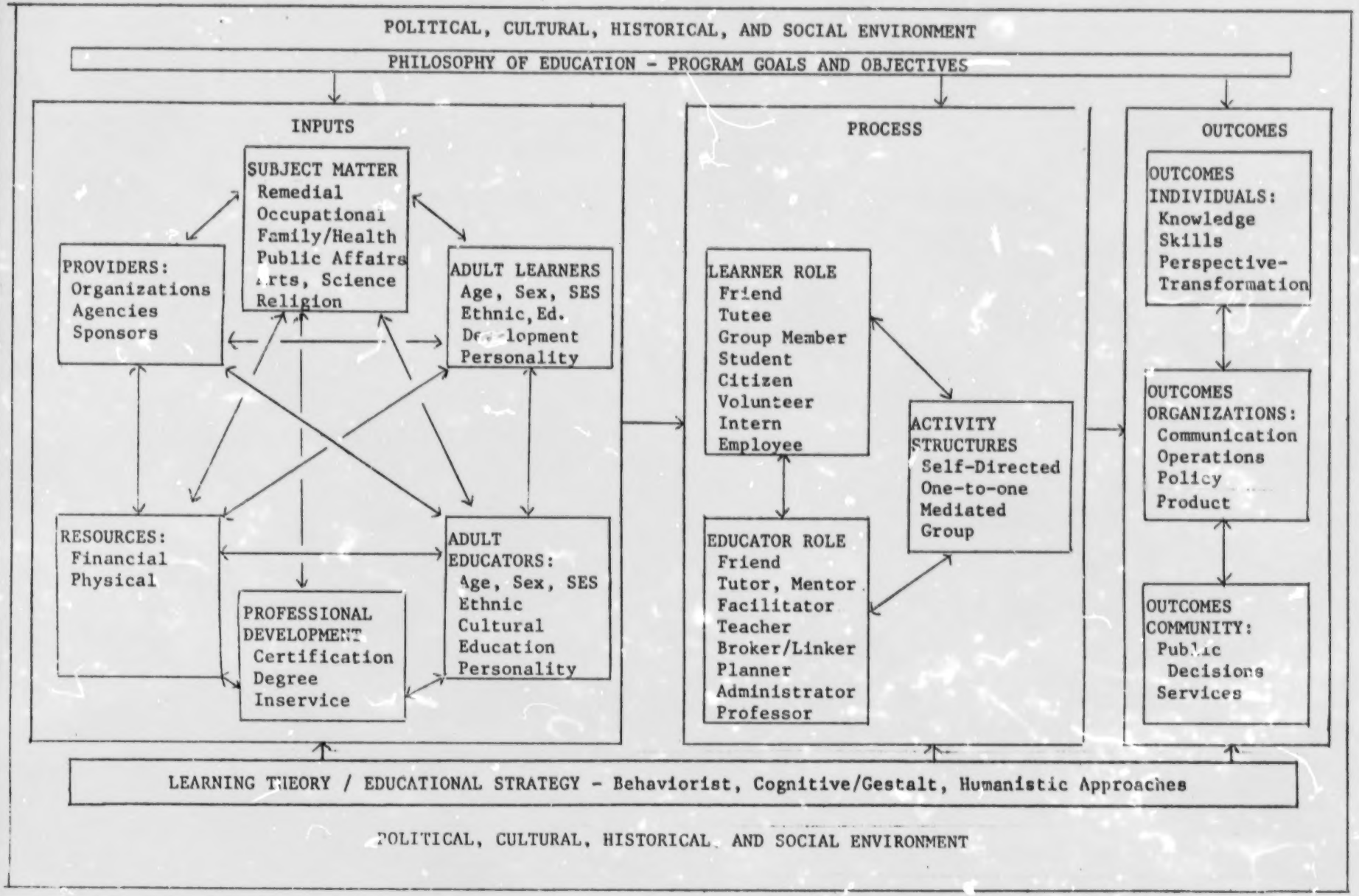


FIGURE 1: CONCEPTUAL FRAMEWORK FOR CLARIFYING RESEARCHABLE RELATIONSHIPS IN THE PROVISION OF ADULT EDUCATION

The political, cultural and social environment are depicted in figure 1 (p. 8) as a context or background variable, which can be considered to have influence on all other variables singularly or in combinations. The philosophy of education variable can be considered to provide an influence on the three major subsystems of inputs, process, and outcomes. Learning theories with their concomitant educational strategies can be viewed as having a similar influence on the educational system of inputs, process, and outcomes, as well as possibly being related to various philosophies of education. The input variables include: providers, resources, subject matter, adult learners, adult educators, and professional development. These are considered for the most part to be related in various ways and to influence as a whole or singularly the nature of the process variables, which include: activity structures, learner roles, and adult educator roles. All of the variables are considered to influence the outcomes, which are depicted as including results for individuals, for organizations, and for the community as a whole through its public decision-making process. Descriptions of concepts and alternative typologies for each of these variables follow. The descriptions are not intended to be exhaustive of the literature, but, rather, they are meant to be illustrative of the richness and variety of combinations. The use of the framework for deriving researchable questions will be discussed as part of the third section of the paper along with various approaches to research that may contribute to theory development.

POLITICAL, CULTURAL, HISTORICAL, AND SOCIAL ENVIRONMENT

In contrast to formal schooling, adult education for the most part is a part-time activity. Therefore, it is essential for the researcher to view that activity within the context of what Bronfenbrenner calls a multisetting participation in a mesosystem, an exosystem, and a macrosystem.

> A mesosystem comprises the interrelations among two or more settings in which the developing person becomes an active participant. For instance, the mesosystem for an American 12-year-old would typically include interconnections between home, school and neighborhood peer group. . .
>
> An exosystem is an extension of the mesosystem involving settings that do not themselves contain the developing person as an active participant, but in which events occur that affect, and occasionally are affected by that person. . .

> The macrosystem encompasses the overarching patterns of stability and change, at the level of the subculture or the culture as a whole, in forms of social organization and associated belief systems and life-styles (1978, pp. 3-4).

Many of the practitioner materials in adult education reflect the notion that adult educators must be relevant to the learner's environment (Knowles, 1970). The history of adult education illustrates its close dependent relationship to the social setting (Knowles, 1962). Still, much more has yet to be learned about the relationship of adult learning to the world of work, the family, peers, and community organizations in which the adult actively participates. Still less is known about the effects of the exosystem and the macrosystem on the adult learner. However, what is of greater significance for this paper is the effect of the macrosystem (including the political structures, historical events, cultural life styles, belief systems, ethnic traditions, and subcultures) on the provider institutions; their resources, and their recruitment; and on the selection, and evaluation of adult educators. Another consideration is the relationship of particular political, historical, cultural, and social environments on the selection of subject matter, activity structures, and the way all of these influence learning outcomes.

The comparative relationship of the practice of adult education in different parts of the United States to the political climate in those regions is an area of important inquiry. Another significant relationship of adult education to politics is its contribution to public policy education and citizen participation in public decision making. Except for the community development literature, little recognition is given to nonformal educational efforts on the part of persons participating in political activity. Most of the adult education literature relating to politics has focused on the education of legislators about the benefits of funding adult education (Cummings, 1967; Griffith, 1976), or the description of policies about state and federal funding (Christoffel, 1978 ; Jonsivil, 1978). Kreitlow (1975), in writing about the effects of federal support for adult education, raised a number of important questions about the relationship of adult education to political structures. These relationships deserve research attention at the macrosystem level.

The belief structures about learning in American society, attitudes toward schooling, and images about the teaching profession, can be viewed as having an influence on the effectiveness of adult education practice. For example what

are the cultural sterotypes and role constraints for women on what is appropriate to learn as opposed to those for men? What are the cultural myths about learning and aging, and how do these inhibit the effectiveness of the adult educator? Much has been written about racism, school desegregation, and integration in the public schools, but we know too little about the effects of racism or ethnicity on the practice of adult education. Studies have been conducted on the relationship of schooling to upward social mobility (Blau and Duncan, 1967, Sewell and Hansen, 1976). More information is needed to understand the relationship of adult education to upward social mobility and to social movements, such as the sex role expansion movement manifested by the increase in returning women students to higher education (Tittle and Denker, 1977 ; Mezirow, 1978). All of these ecological, environmental, context, or macrosystem research issues deserve further research on their relationship to adult education. According to Boyd (1979, p. 15), the political, historical, cultural, and social environment constructs a zone of tolerance, vulnerability, and conflict avoidance within which education is conducted. This affects the curriculum, the availability of resources, the selection of educators and how they perform, as well as the criteria by which they are evaluated.

PHILOSOPHY OF EDUCATION

Educational philosophy involves the application of formal philosophy to the field of education. Philosophy of education can be defined as a concern for systematically examining, analyzing, and interpreting assumptions and meanings of such questions as the good life to which education should lead; the nature of persons who are being educated; the nature of society and the role of education as a social process in that society; and the nature of ultimate reality, which all knowledge seeks to penetrate (Kneller, 1971, p. 202). The reason that philosophy of education is imperative to consider in research is that alternative philosophies of education held by the researcher, the providers or sponsoring agencies, and the adult educators tend to affect conceptualizations of the nature of roles assumed by the actors, the nature of activity structures selected, and the nature of expected outcomes. Conceptualization of intended or anticipated outcomes especially differ according to different philosophies of education. Kohlberg and Mayer (1972) state that:

> The most important issue confronting educators and educational theorists is the choice of ends for the educational process. Without clear and rational educational goals, it becomes impossible to decide which teach incidental facts and attitudes of dubious worth. While there has been a vast amount of research comparing the effects of various educational methods and programs on various outcome measures, there has been very little empirical research designed to clarify the worth of these outcome measures themselves (p. 449).

Perhaps one of the reasons for a lack of research designed to clarify the worth of different outcome measures is that researchers tend to start with unexamined philosophical orientations given to them or assumed on their own, and to ignore incompatible alternative conceptualizations of effectiveness. The larger research task calls for comparative studies which focus on inputs, process, and outcomes, according to different philosophies of education.

A number of different classifications are useful for such studies and illustrate the range of purposes, goals, and objectives. Kohlberg and Mayer (1971, p. 451-454) suggest three streams of educational ideology: 1) Romanticism, which stresses health, growth, and nurture of the inner self; 2) Cultural transmission, which stresses the transmission of knowledge, values, and skills as defined by the culture; and 3) Progressivism, which stresses pragmatic functional problem solving for development of persons and society. Kneller (1971, pp. 231-262) divides what he calls "contemporary educational theories" into the following categories: 1) Perennialism, which stresses allegiance to principles, rationality, and basic knowledge of past academic achievements; 2) Progressivism, which stresses learning through problem solving, starting with the interests of the learner, cooperation among learners, and the development of a democratic society; 3) Essentialism, which stresses reinstatement of subject matter at the center of educational process, discipline, and hard work in learning ascribed subject matter; 4) Reconstructionism, which stresses the creation of a new, democratic social order controlled by the people themselves, and the use of the behavioral sciences in bringing about social change; and 5) Existentialism, which stresses freedom, choice, the potential for action, and authentic, honest search. Even a brief scan of these orientations suggests that standards for judging effectiveness are likely to vary with each educational philosophical orientation.

According to Meriam (1977), fewer than a dozen books and twenty articles have been published which specifically address the philosophy of adult education.

Most of the authors are either American or British, with the exception of Freire (1970) who is from Brazil and Chile. The following authors have made significant contributions: Blakely (1958); Lindeman (1961); Kallen (1962); Bergevin (1967); Freire (1970); Apps (1973); and Lawson (1975). Merriam (1970, p. 206) states that "a review of the philosophical literature on adult education reveals a great variety of opinion as to the field's aims and objectives, the roles of the learner, the teacher and the instructional process, and the content to be learned." It would be a mistake to undertake research on the effectiveness of adult educators without viewing the context of different philosophical approaches to adult education.

LEARNING THEORIES

In the framework described in figure 1 (p. 8), learning theories and their concomitant educational strategies are viewed as having a researchable relationship to various program areas, types of providers, types of educators, roles of students, activity structures, and conceptualizations of outcomes as well as actual outcomes. Little is known in the field of adult education about the intended or unintended use of educational strategies on the part of adult educators. Judgments about the effectiveness of educational outcomes at the macro level require at least descriptive data about the preferences of adult educators for various educational strategies as well as knowledge about the extent that various strategies are being implemented by adult educators. Typologies such as the following could be used for comparative studies relating learning theory to various other variables within the conceptual framework.

The research literature on learning theory is quite diverse and complex arising from at least three streams of psychology (Marx, 1970). The behavioral psychologists, when discussing learning theory, draw upon the work of Pavlov (1927), Watson (1930), Thorndike (1932), Hull, (1943), and Skinner (1950) to name a few of the better known researchers. Their theories focus on learning as conditioning, reinforcing, or modeling. Educators drawing from this school bring about change in behavior (actions) through manipulating the environment or by providing education as a stimulus. The Gestalt psychologists, on the other hand, draw upon the work of Tolman (1932), Wertheimer (1959), Lewin (1942), Piaget (1971), and Kohler (1947) to name a few. Their theories focus on conceptualizing, perceiving, mapping, and cognitive (thinking) development.

Educators influenced by this school tend to design curricula that encourage conceptual growth and development. The third group is composed of humanistic psychologists and educators who draw upon the work of Maslow (1954), Rogers (1969), Bradford (1970), Festinger (1957), and Freire (1970), to name a few. Their theories and concepts focus on experiencing, reflecting, and choosing. Educators drawing from this school are likely to provide a climate and a relationship that encourage persons to reflect upon their values, the meaning of experiences, and the choices which are theirs to make, in order to bring about a perspective transformation.

Although these brief descriptions are a gross oversimplification of complex positions, the three groups can be said to emphasize behavior (acting), cognition (thinking), and attitudes (valuing) respectively. This overview is depicted below in figure 2 (p. 15).

Research findings are ambiguous and inconclusive on the extent to which change in any one of these educational and psychological research foci will bring about change in each of the others. There is some evidence that people change their attitudes or their thinking and still continue behaving as they always did, at least in tests over short periods of time. Abelson (1971, p. 25) said that "we are very well trained and very good at finding reasons for what we do, but not very good at doing what we find reasons for." However, people also seem to change their attitudes over time when their behavior changes, especially if they become intrinsically motivated. In any, case, human beings seem to have a marvelous capacity for hypocrisy--that is, the presence of a discrepancy among behavior, cognition, and attitudes at least when measured over the short run. Perhaps there is a cue here. Hypocrisy may be positive evidence of change that is in process, and the awareness of the discrepancy in this case may be temporarily buried while the person tries out a partial change. If more complete change is to occur, the discrepancy would have to be brought to the level of awareness. If this is the case, then a complete change could start from any one of the circles (figure 2) and deliberately focus on the incogruities involved with each of the other two circles. The implication of this idea for adult educators is that they should consider all three clusters of learning theories and their accompanying educational strategies as complementary to the more comprehensive task. It is also likely that some theories are more useful than others for teaching different types of outcomes

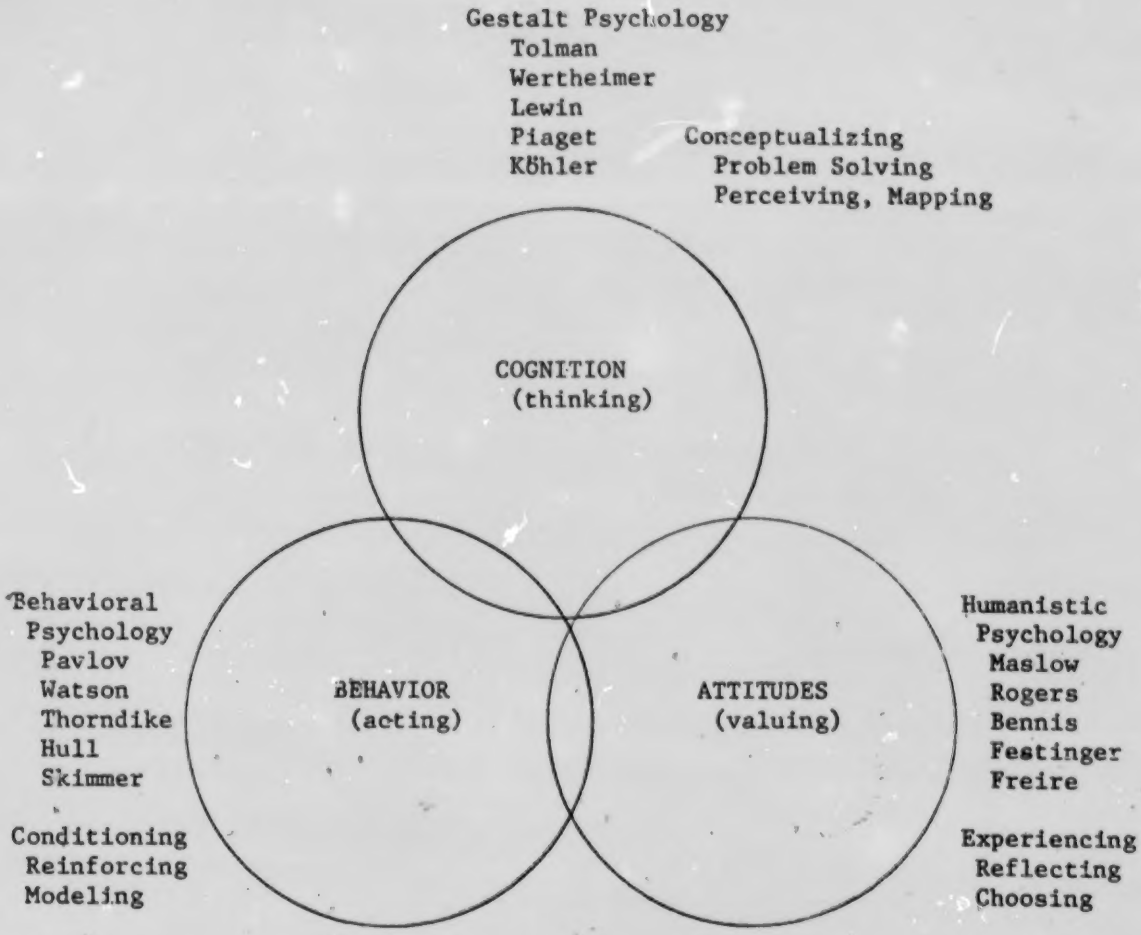


Figure 2: Map of Selected Contributers to Theories of Learning.

to different types of persons. One element seems to be present in all of the various approaches and theories of learning. That element is tension. Learning apparently does not occur without tension in some form. It may be present in the reduction of a need, the absence of an answer, an incongruity between logic or behavior, the dissonance among values or between values and behavior, beliefs and action. In any case, learning--modifying a behavior, changing one's thinking, or working through one's values, feelings or attitudes--begins with a disturbance of some sort that calls for a response. According to various theories, without that tension, it is unlikely that persons will learn, no

matter how accurate, useful, or attractive the information put before them. The implication is clear: the adult educator must either build from existing tension already acknowledged by potential learners or that tension must be induced, made evident, or created by what the educator does in conjunction with the learner.

A Few Selected Educational Strategies

The following list of educational strategies was derived through scanning, synthesizing, and simplifying implications from a wide variety of learning theories. The list is not exhaustive, but merely suggestive of the many alternative ways to hypothesize and to structure educational activities based on assumptions about learning. At the present time, there is no comprehensive theory of learning that adequately synthesizes the diverse research findings in the field. Research is still needed to determine the relative effectiveness of various strategies for various purposes and audiences. The following strategies certainly are not independent of one another and often are used simultaneously or in sequence.

Behavior Modification and Reinforcement Strategies

1) Rewards - Individuals may change their behavior to a desired behavior when they are rewarded for doing so. Sometimes desirable behavior may be encouraged by punishment or the threat of unwanted consequences.

2) Association - Individuals may change their behavior to a desired one when that new behavior is experienced frequently and is associated repeatedly with an already existing behavior pattern.

3) Modeling - Individuals may change their behavior when they see what "good" looks like in contrast to what is undesirable or poor.

4) Taboo Substitution - Individuals may change to new behavior when new taboos, created and reinforced by authority or peer influence, are substituted for taboos that do not support the behavior. This is sometimes called counterconditioning.

Cognitive Development Strategies

5) Curiosity Stimulation - Individuals may change their beliefs, opinions, and understanding when they are challenged to explore a question or a situation that is posed as a puzzle or a mystery to be investigated and solved. This is in contrast to the practice of advocating answers to questions that no one has asked. Creative thinking approaches usually build from open-ended questions and activate the need forclosure.

6) Error Testing/ Problem Solving - Individuals may change their beliefs, opinions, and practice when they move through a problem-solving-cycle that consists of a disturbance, decision to act, diagnosis, search, application, evaluation and disturbance, etc. Educators perform the tasks of catalyst, process helper, solution giver, and resource linker at appropriate points in the cycle. Sometimes people will accept the findings or results of experiments of others who have gone through the cycle, but often people have to perform their own error testing or experimentation.

7) Reverse Reasoning - Individuals' beliefs, opinions, and understanding may change when they are asked to provide a rationale for why they can't do something. While providing this defense, they may discover the weakness in their own arguments and as a result entertain opposition positions. Taking an opposing position to one's own in a debate or in a role play also may provide grounds for persons to reverse their positions.

8) Mapping and Holistic Thinking - Individuals' beliefs, opinions, and understanding may change when they are encouraged to see a part of something in relationship to a map of the whole. Sometimes they will change when asked to create a "big picture" of the whole by viewing parts in relationships. This strategy builds from the human tendency to look for patterns.

9) Concept Expansion - Individuals' concepts may be expanded by the presentation of new concepts and the explanation of how they will link with or be incorporated into their existing way of thinking. They accept the new ideas as extensions rather than as ideas requiring the rejection of the familiar.

Perspective Transformation and Insight Strategies

10) Symbolic Action - Individuals' perspectives, attitudes, and values may change when they participate in symbolic actions that have the effect of synthesizing their personal experience with transcendent meaning and values held by a culture, ethnic community, social movement, or religious tradition.

11) Reflection on Social Contradictions - Individuals' perspectives, attitudes, values, and resolution to act may change when they are asked to reflect on and explain the contradictions that make up their personal, social, cultural and religious ideas, attitudes, and behavior.

12) Values Clarification - Individuals' choices of values may change when opportunity is provided for them to choose freely from among several alternatives after thoughtful consideration of the consequences of each choice.

13) Futures Invention - Individuals' perspectives, attitudes, and values regarding the present may change when they are asked to imagine possibilities or to invent models of what they want the future to be. Projecting the possibilities of negative consequences also may bring about a new way of looking at present conditions and situations.

Of course, there are many other ways to classify educational strategies. Kidd (1975) and Knox (1977) have provided a range of issues and approaches for adult educators. The point is that the field of adult education should know more about which strategies, if any, are being used by different adult educators with various types of learners, with what types of outcomes.

PROVIDER ORGANIZATIONS

According to Peters (in press), adult educational activities are particularly difficult to fit neatly into established forms because they cut across institutional lines. Adult educators not only operate within established organizations, but also outside them as catalysts between organizations, within informal groups, and as individuals. Nevertheless, several of the following typologies, briefly described, will suffice to show the complexity of arrangements and their possible impact on the recruitment, selection, retention, rewards structures, and evaluation of volunteer, part-time, and full-time adult educators.

Before discussing organizational arrangements and types, the point should be made that learning occurs not only in formal instructional settings but also in natural settings through both fortuitous and intentional means. Little (1978) has proposed a schema for the classification of adult learning settings (figure 3, p. 20).

His schema clarifies distinctions among pre-adult education, adult education, and learning from natural societal settings, and in addition, shows distinctions between education directed by others and education directed by self. The latter can account for about seventy percent of adult education. This paper however, focuses on the thirty percent of adult learning that is influenced by the direction of adult educators who, according to distinctions on Little's schema, function in both non-institutional and institutional settings.

The categories included in the new Handbook of Descriptors prepared for the National Center for Education Statistics by the National Center for Higher Education Management Systems also makes these distinctions by listing the type of providers as: 1) education organization; 2) organization other than education; 3) informal group or individual; and 4) self (p. 3-11).

Schroeder (1970, pp. 37-38, and in press), drawing from the work of Houle (1974) and Verner (1964) proposed the following types of agencies in adult education:

> Type I Agencies, established to serve the educational needs of adults -- adult education is a central function.
>
> Type II Agencies, established to serve the educational needs of youth but also at least partially serve the educational needs of adults -- adult education is a secondary function.
>
> Type III Agencies, established to serve both educational and non-educational needs of the community -- adult education is an allied function employed to fulfill only some of the needs that agencies recognize as their responsibility.
>
> Type IV Agencies, established to serve the special interests of special groups -- adult education is a subordinate function employed primarily to further the interests of the agency itself.

Still another way to classify adult education organizational arrangements is according to the continuum proposed by Rice and Bishroprick (1971), which uses organizational goals to make differentiations. Forms run the gamut from autocratic to egalitarian, with bureaucracies, collegial organizations, federations, and decentralized forms of organizations at the center.

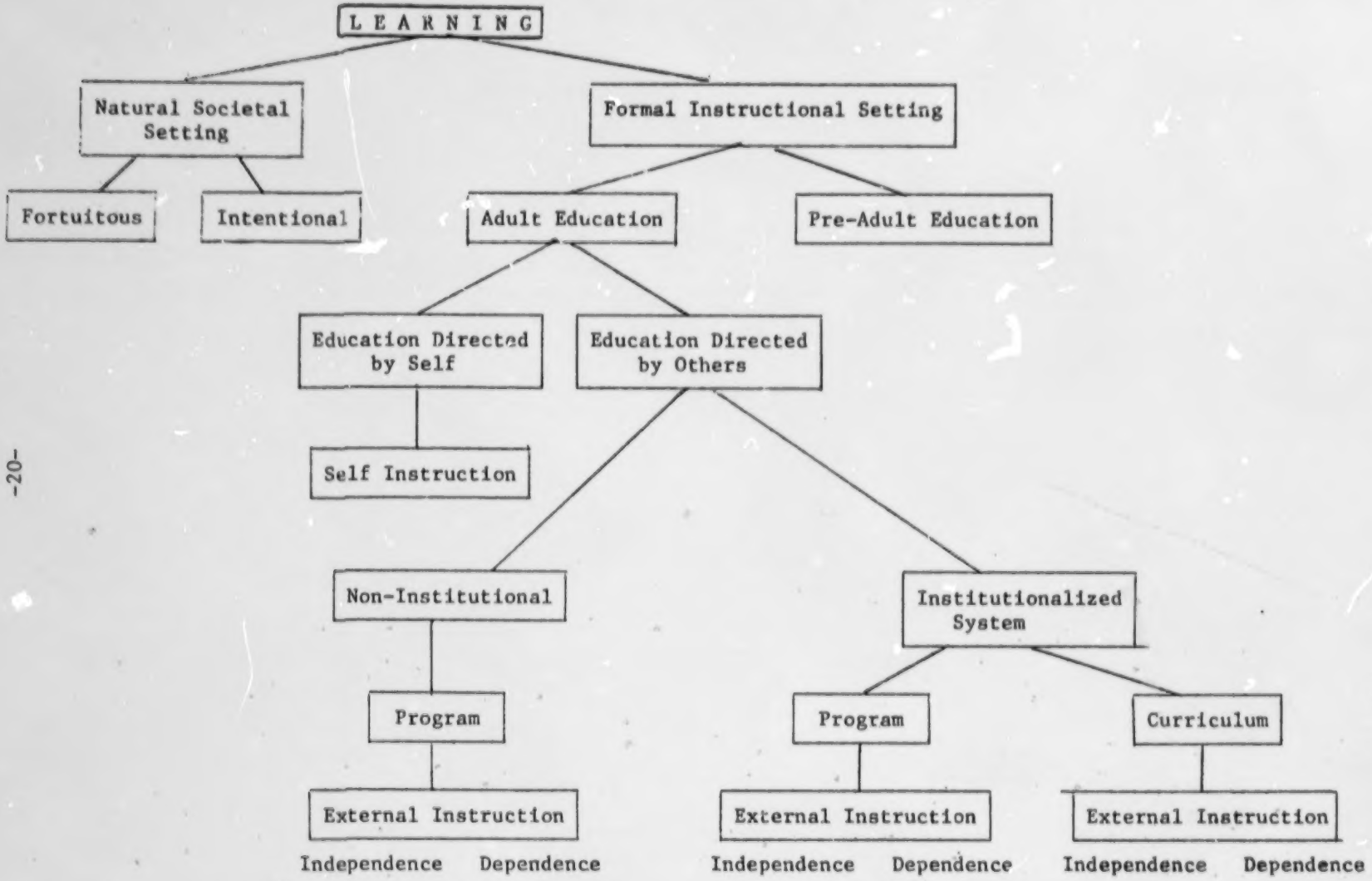


Figure 1. Schema for the Classification of Adult Learning Settings

A more conventional way of grouping agencies has been used by Petersen and Petersen (1960, p. 88). These are shown in table 1 (p. 22). The difficulties posed by this latter approach according to Dickinson are:

> . . . that no two lists of institutions are identical, and there is always a residual category of other organizations which sponsor programs of adult education. Thus, it is difficult to compare the results of studies which use different institutional groupings and there is little possibility to accumulate knowledge systematically. In addition, such approaches generally do not accommodate adult education that is provided by non-institutional sponsors (1978, p. 3).

Schroeder (in press) has recently developed a new typology to include four categories of institutional agencies, four types of voluntary agencies, and two types of individual agents, all of which are referred to as operating systems. According to Dickinson (1978, p. 6) Schroeder's new typology "extends and improves upon previous attempts to classify the providers of adult education in that it accommodates educational activities that are outside the sphere of institutions. There remain some difficulties, however, in classifying particular providers in the institutional and voluntary agency categories." Dickinson goes on to suggest that those who have considered the use of typologies of institutions for research have found them relatively unfruitful because they have not taken the next step of developing a conceptual model which would lead to the development of theory. Such theory development might be enhanced by considering the relationships among the variables of provider institutions (variously classified); types of adult educators recruited, selected, and evaluated; modes of client affiliation; communication structures; and the effects of political influence on organizational practice. Such research may have the possibility of yielding theory about why various populations are not served, as well as why educators vary in their effectiveness.

Table 1: Agencies, institutions, and associations that have adult education as one of their major interests

Educational institutions
- public schools
- colleges and universities
- Cooperative Extension Service
- business, technical, and special-interest schools
- private correspondence schools
- private adult schools
- libraries
- museums

Government agencies and departments
- U.S. Department of Agriculture
- U.S. Department of State
- U.S. Office of Education
- Miscellaneous federal agencies that inform the public on specific fields
- state departments of education
- health departments and institutions
- armed forces programs
- prison education
- in-service training of government employees

Private health, welfare, and recreation agencies
- health education agencies
- family counseling and guidance agencies
- community welfare organizations
- recreation and youth (Y's, settlement houses, etc.)
- civic improvement groups
- adult education councils and associations

Business and industry
- trade associations and business organizations
- education of the public about specific commodities and business goals
- in-service training of employeed
- labor unions
- professional organizations
- farm groups

Miscellaneous organizations
- women's groups
- service clubs
- fraternal organizations
- parent-teacher associations
- alumni groups
- veterans and patriotic organizations
- political associations
- churches and religious groups

Mass media
- newspapers and magazines
- radio and television
- motion pictures and theater

ADULT EDUCATORS

Who are the adult educators of the U.S.A.? How many do they number in various categories? What are their characteristics such as sex, age, ethnic and cultural background, socioeconomic status, personality patterns, educational background, learning styles, and competencies? These are straightforward questions, but the answers are not easily found, at least from the present research findings.

The range of endeavors is not as great in scope or function as it is in industry, but according to Houle (1970, p. 110), "it is wide enough to make difficult generalizations about the basic concerns of the total field." Nevertheless, Houle proposes a simple typology that takes the general shape of a pyramid which reflects his general assumption about the distribution of volunteers in comparison to part time and full time adult educators:

> This pyramid is divided into three levels which are essentially different, although at their edges they blend into one another, so that no sharp lines can be drawn to differentiate them.
>
> The widespread base of the pyramid is made up of lay leaders in a great variety of community settings . . . (volunteers).
>
> At the intermediate level of the pyramid is a smaller but still very large group of people whose adult educational service is part of their regular jobs or who accept supplemental employment in that field . . .
>
> At the apex of the pyramid is the still smaller but sizeable group of people who have made adult education the focus of their careers and plan to spend their lifetimes as specialists in it . . .
>
> Nobody knows how many people are at each of the three levels and therefore how flat or how tall the pyramid of leadership in adult education may be (1970, p. 111-113).

Houle's pyramid is depicted in figure 4:

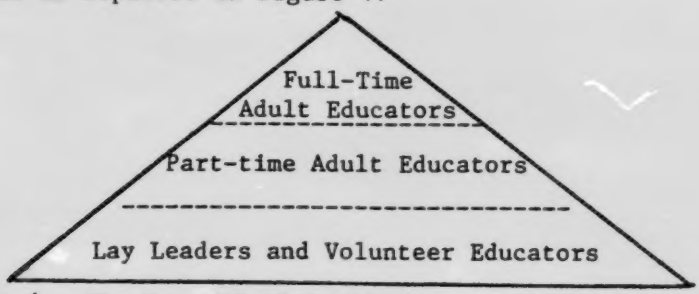


Figure 4: The Pyramid of Leadership in Adult Education

Demographic Characteristics

One of the problems that exists when gathering data on the demographic characteristics of adult educators is that the definition does not fit neatly into the traditional occupational titles because of the voluntary and part-time

emphasis as well as the broad range of titles used in different provider organizations. The U.S. Department of Labor, Bureau of Employment Security (1977) defines adult education as a subset of teacher:

> Teacher, Adult Education
>
> Instructs out-of-school youth and adults in academic and non-academic courses in public or private schools or other organizations: Prepares outline of instructional program and studies and assembles material to be presented. Presents lectures and discussions to groups to increase students' nowledge or vocational competence. Tests and grades students on achievement in class. Teaches courses, such as citizenship, fine arts, and home-making, to enrich students' cultural and academic backgrounds. Conducts workshops and demonstrations to teach such skills as driving, sports, and dancing, or to provide training for parenthood. May teach basic courses in American history, principles, ideals and customs and in English to foreign-born and be designated an educator (099.227-030).

The U.S. Bureau of the Census reports information by occupation under the heading of 'Social and Economic Characteristics of the Experienced Civilian Labor Force by Detailed Occupation and Sex' (1970). The distribution of adult education teachers according to sex and racial origin is presented in table 2:

Table 2: Distribution of Adult Education Teachers According to Sex and Racial Origin*

(Female Total	24,100	(Male Total	27,535
White	21,242	Male White	25,788
Negro	2,342	Male Negro	1,393
Am. Indian	135	Am. Indian	44
Japanese	123	Japanese	91
Chinese	140	Chinese	111
Filipino	39	Filipino	---
Spanish	761	Spanish	691

*Does not include College and University sponsored continuing education

The distribution of adult education teachers according to sex, median earnings, weeks worked, school years completed and age are presented in table 3:

Table 3: Distribution of Adult Education Teachers According to Sex, Median Earnings, Weeks Worked (FTE), School Years Completed and Age*

Adult Education Teachers (Both Sexes) Total 51,635

Total Male	27,535	Total Female	24,100
Median Male Earnings	9,469	Median Female Earnings	4,761
Median Male Weeks Worked	50+	Median Female Weeks Worked	44.1
Median School Years Completed	15.1	Median School Years Completed	16.1
Median Age	38.1	Median Age	37.5

*Does not include College and University sponsored continuing education.

It is not clear how these figures fit with Houle's Pyramid of Leadership. However, they do raise some interesting implications for affirmative action on both racial, sexual, and egalitarian grounds. Another interesting and infrequently raised question related to the demographic characteristics of adult educators is the relative size of the minority teaching force compared to the ethnic backgrounds of adult basic education learners (Hulbert, 1979).

There are no known research reports that comprehensively describe and compare the demographic characteristics of adult educators according to different provider organizations. Some demographic information is undoubtedly embeded in studies that have been conducted for various purposes. These, however, tend to be limited to very small populations in small geographic areas focusing on a single type of adult education provider organization. A study conducted by Hole (1977) is on a somewhat larger scale in that it includes demographic characteristics and inservice needs of adult vocational teachers in the whole state of Pennsylvania. It indicated that most adult vocational teachers in Pennsylvania were between the ages of twenty-five and thirty, teaching secondary full-time and adult vocational part-time, had two to three years full-time teaching experience, and four to five years part-time teaching experience, had three to five years of nonteaching work experience in their vocational area and held no valid teaching certificate. The findings regarding competency levels indicated that, in general, adult vocational teachers rated their acquired proficiency level lower than the level desired in almost every

competency area. There are probably other such studies that could be located with a systematic search, but there is certainly no comprehensive profile of adult educators for each of the many provider organizations in the field.

Competencies and Proficiencies

Studies of what adult educators value -- their attitudes, beliefs, opinions, important knowledge and competencies have appeared in the literature since 1950. In that year White (1950) identified nine topics, all within the domain of skills or understandings. Chamberlain (1961), in another doctoral dissertation, completed a study in which he tabulated rank order responses to forty-five statements of personal objectives each beginning with the phrase, "The successful professional adult educator has an understanding." Examples of these items include: a) has an open mind; b) is himself learning; c) can communicate effectively; and d) believes in freedom of thought and expression. Soon after, Aker (1962) identified twenty-three "behaviors judged to be adequate criteria for determining the achievement of educational objectives" of graduate study in adult education. Since then a number of studies focusing on content of adult education graduate programs have been conducted (Burress, 1978; Campbell, 1977; Douglah and Moss, 1969; Ingham and Qazilbash, 1968; Knox, 1973; Kreitlow, 1965; Scates, 1963; Veri, 1967, 1970; Verner and others 1970). The above studies can be characterized as survey research (mailed questionnaire) concerning the judgements and opinions of professors of adult education. Categories for these studies were identified a priori.

Since the Competency Based Teacher Education movement came upon the scene, a number of studies concerning the competencies of adult educators have been conducted. These have mainly focused on vocational adult education and to some extent the adult basic education field. Most of this literature, which is primarily in the form of reports on teacher training projects funded by the federal government, describes the identification of desirable competencies, based on surveys of professors of adult education, or teacher judged preferences. The work of Stamper (1971), Bradshaw (1973), Mocker (1974), Zinn (1975), and Grabowski (1976) pertain to adult basic education. Studies of Harris (1965), Penner and Price (1972), and Allen (1976) pertain to vocational education. The work of Williams (1969), Strother (1977), and Matran (1977) are examples of work pertaining to Cooperative Extension and community colleges. Charters and Hilton (1978) conducted an open ended qualitative study with adult education

administrators. A study by Bunning (1976) is illustrative of the above efforts. Using a Delphi Technique with 141 professors of adult education, four rounds of questionnaires were returned with approximately 80% returns from the original sample. Six general categories were created by grouping similar statements that received high concensus. The six general categorization areas are:

1. The Adult Educator Himself: Statements included in this category were those which related to the adult educator's personal development, his attitudes, and, ultimately, his effectiveness as a person.
2. The Field of Adult Education: This category included statements which were directed toward knowledges and skills which would be of value to the field of adult education itself, including an understanding of and influence on its scope, goals, functions, trends.
3. The Adult Learner: Skills and knowledges placed in this category were those dealing with an understanding of the adult learner including making and maintaining contact with him and the providing of guidance and leadership.
4. The Adult Education Environment: Categorized here were statements which were aimed at providing the adult educator with the skills and knowledges necessary to deal effectively with groups, forces, and other environmental factors that interact with the process of adult education.
5. Adult Education Programming: Skills and knowledges included in this category dealt with the planning, designing, and implementation of educational experiences. Also included were certain aspects of programming such as staffing, resource development, and administrative functions.
6. The Adult Education Process: Statements of skills and knowledges listed in this category were those that dealt with the process of adult education as it directly interacts with the learner. These included effective use of methods, techniques, and devices, how adults learn and change, and of process evaluation.

Another study that involved adult education teachers in identifying teacher competencies was conducted by Mann and Burrichter (1976). Their key competencies of adult educators are:

1. Understands the role of adult education within the community.
2. Understands the interrelationship of the school and community in providing adult education.
3. Facilitates individual adjustment to the changing nature of our society.
4. Uses instructional methods with special relevance and effectiveness with adults.
5. Assesses learning needs of students.
6. Demonstrates behaviors which reflect a feeling for the dignity and worth of the individual.
7. Understands conditions and motivations which affect adult learning.
8. Is willing to continue professional growth.
9. Interacts constructively with adults.
10. Develops and organizes curricula reflecting needs, interests, expectations, and abilities of adult participants.
11. Develops appropriate goads and objectives for adult programs.

Another classification of competencies and instructional skills is reported by Burrichter and Gardner (1978):

INSTRUCTIONAL SKILLS

Assess Learning Needs

Diagnose entry knowledge and skill of adult learners for a given set of instructional objectives.
Use performance-based assessment procedures.
Provide for learner self-evaluation.
Recognize symptons of physical deficiencies that may hinder performance.
Provide continuous feedback to learners on their education progress.
Keep records of class and individual progress.

Use Relevant and Effective Instructional Methods

Communicate in a coherent and logical manner.
Use sequential, relevant short-range instructional objectives.
Assist adult learners in development of problem-solving skills.
Apply instructional techniques which use the talents, abilities, and experience of group members.
Assist adults in the development and use of learning skills.
Provide practical activities for learning.
Adjust instructional techniques to meet immediate learning needs.
Promote self-directed learning.

INTERPERSONAL RELATIONSHIPS

Develop Effective Working Relationships with Adult Learners

Establish a basis for mutual respect with adult learners.
Interact constructively with adults.
(Approachable, friendly, responsive, and supportive)
Communicate effectively with adult learners.
Use reinforcement techniques.
Apply principles of group dynamics.
Respond positively to constructive criticism by making appropriate changes.
Observe adult learners expressing their ideas freely.

Exhibit Behavior Reflecting a Feeling for the Dignity and Worth of Individuals

Accept comments of adult learners with a positive attitude.
Solicit comments and expressions of adult learners.
Relate effectively to people from a variety of cultural, economic, and occupational backgrounds.
Assist in developing positive self-concepts by designing "success" opportunities for each learner.
Encourage the learner's growth through supportive communication.

CURRICULUM DESIGN

Develop and Organize Curriculum Reflecting Needs of Adult Learners

Provide curriculum for varying ability levels.
Identify needed topics and concepts of each subject taught.
Provide curricula which meets the individual's personal interests.
Provide curricula which assists adult learners to acquire employment skills.

Provide curriculum which stimulates a high level of aspiration.
Provide opportunities for adult learners to participate in the evaluation of curriculum.
Provide opportunities for adult learners to participate in curriculum development.
Relate adult developmental characteristics (sociological, psychological) to curricula selection.

Develop Appropriate Goals and Objectives for Adult Programs

Help adults formulate their goals.
Contruct learning objectives with measurable outcomes.
Apply adult learning theory to the process of program development.

PERSPECTIVES OF LEARNING

Develop Conditions which Facilitate Learning

Provide a suitable learning environment.
Reinforce positive attitudes toward adult learning.
Assist adult learners to develop positive attitudes towards lifelong learning.
Relate learning to immediate application.
Recognize signs of the potential adult dropout.

Demonstrate a Commitment to Lifelong Learning

Participate in adult education staff development programs.
Read professional literature.
Enroll in college courses for professional growth.
Attend conventions and conferences relevant to professional growth.

COMMUNITY DEVELOPMENT

Understand the Purposes of Adult Education Within the Community

Understand the role of an adult educator.
Understand the national and state objectives and services of adult education.
Explain the role of adult education to both school and community.
Talk and act enthusiastically about the program.
Identify the major functions of community agencies which serve the social, educational, and training needs of adult learners.
Identify potential employment or on-the-job training opportunities within the community.
Know the social structure and characteristics of the community.
Use community resources in the classroom.

Assist Individual Adjustment to the Changing Nature of Our Society

Invite learners to consider new roles in a changing society.
Use social skills which assist adult learners in developing a positive self-concept.
Assist adult learners in acquiring social skills to relate to others.
Recognize processes involved in community change (pp. 105-109).

Knox (1979) has synthesized and summarized the above literature on competencies and proficiencies. He has identified a core of proficiencies for all practitioners including administrators, teachers and counselors, and policy makers. This core includes: a) Understanding of the field of adult education, scope and types of providers, parent organizations, societal influences, and resource identification; b) Understanding of adults as learners, adult development, and adult learning; and c) Personal qualities such as commitment, interpersonal effectiveness, and an innovative approach to practice. Proficiencies that are specific to adult education administrators include program development, use of research and administrative skill. Proficiencies that are specific to adult education teachers and counselors include knowledge of subject matter areas, adult development, and the process of helping adults learn, especially program development procedures. Proficiencies of adult education policy makers include the understanding of the resources and expectations of organizations, familiarity with the way organizations function, and knowledge concerning the way decisions are made in various systems.

Although the literature review reveals a number of different ways of categorizing competencies and proficiencies, a general concensus seems to be emerging. This concensus, however, is drawn from research that focuses on the judgment of adult educators themselves.

Performance Evaluation

While research concerned with evaluation of teaching effectiveness has been conducted for decades in elementary and secondary education, it is very seldom done in adult education. According to Schwind (1977), this is due to: a) difficulty in doing controlled studies in organizations; b) costs of training evaluations; c) unwillingness to accept new approaches, a "don't rock the boat" attitude; and d) lack of valid and reliable evaluation instrumentation. Schwind, after weighing the strengths and limitations of the use of critical incidents in Behaviorally Anchored Rating Scales (BARS) suggests the use of the Behaviour Description Index (BDI). The advantage of the BDI is that instead of relying on vague trait characteristics which mean different things to different people, very specific behaviours are described, which can easily be observed. This approach appears promising in determining desired behaviours on the part of adult educators that are related to desired outcomes on the part of learners.

The most behaviorally anchored study on adult education performance

evaluation found in the literature is that prepared by Hahn (1979) for the Cooperative Extension Service. The study gathered data from 1,500 Cooperative Extension agents who spent over seventy percent of their time in one program area. Data were collected from Iowa, Michigan, New Hampshire, New Mexico, Pennsylvania, South Carolina, Texas, and Washington. Position descriptions were analyzed. Critical insident techniques were used in both employee job observations and through interviews. Self administered mailed questionnaires were also used. The purpose of the study was to identify adult educator activity associated with superior performance. The categories of job performance that were identified through Hahn's study are reported below along with their relative percentage weights:

Categories of Job Performance
for Cooperative Extension Agents

Assessing Community Needs (8%)
Acquiring knowledge of the community and assessing its needs

Planning (9%)
Planning programs as well as specific activities and events; managing one's time; using reasoning in problem solving

Program Promotion and Public Relations (7%)
Promoting programs and Extension Service; raising funds; using mass media

Involving the Community in Program Implementation (8%)
Organizing and working with groups; recruiting, developing and using lay leaders; broadening community involvement

Conducting Educational Programs (11%)
Preparing educational materials; giving formalized instructions to groups; using specialist resources

Advising and Assisting Clientele (9%)
Responding to client's requests for advice and technical assistance; manifesting subject matter knowledge

Evaluating Programs (6%)
Evaluating program effectiveness

Reporting (5%)
Reporting program activities and accomplishments

Continuing Professional Development (6%)
Taking graduate courses; attending in-service training; participating in professional societies; reading professional journals

Office Management and Administrative Tasks (5%)
Budget preparation; maintenance of supplies, equipment, records and files; staff conferences; use of secretarial time; office appearance

Supervising (5%)
Supervising subordinates for whom agent has official responsibility

Working Relations with Staff (7%)
Behaviors and outcomes reflecting teamwork with co-workers

General Interpersonal Behaviors and Characteristics (6%)
General behaviors and characteristics reflected in dealing with others besides staff

Personal Behaviors and Characteristics (7%)

General behaviors and characteristics reflecting attitudes toward job; work motivation; professional standards (p. 18).

The Hahn study developed procedures for implementation of a performance evaluation process in Cooperative Extension. Results of its use (if it is introduced) will undoubtedly provide valuable findings concerning the performance levels of adult educators within Cooperative Extension. Studies that further relate actual outcomes on the part of adult learners with these performance ratings should also be ongoing if the question of effectiveness is to be adequately answered.

Personality Characteristics

Even less is reported in the literature about the personality characteristics of adult educators. Roper (1976) studied 598 teachers of adults in the State of Utah who were teaching college credit courses to adults and found that the ability of adult educators to relate to adults as interesting and adaptive individuals was correlated with high success rated teachers. Another characteristic about which little is known is the level of professional ethics observed or practiced by adult educators.

Education Backgrounds

How much of the differences between effective and noneffective adult learning can be explained in terms of the educational backgrounds of the adult educators? There are several ways of defining educational background. Of course, it includes the level of educational achievement in various areas of subject matter which may or may not be directly related to the content of what is being taught. The quality of formal educational background as well as informal work experience may also be important to consider. However, educational background also includes the effect of the modeling of formal teacher and professor behaviors in classrooms for years and years of schooling. A most

interesting question arises if the researcher considers the cumulative impact of elementary and secondary educator modeling on adult educators who teach without receiving any formal education in teaching process. To what extent do adult educators replicate or emulate in their own teaching the behaviors, roles, and activity structures that they themselves observed and experienced in formal school? Casual observation suggests that this may be a powerful explanation for both effective and noneffective learning outcomes in adult education.

Still another characteristic of adult educators that has potential as a research line of inquiry is their cognitive style (field dependent vs. field independent). Little is known about whether matching cognitive styles of learners with the same or different cognitive styles of adult educators makes a positive or negative difference (Even, 1978).

Abbey, Davie, Griffin, Ironside, and Fales (1977) report another interesting study in progress on the career life understanding of mature practitioners of adult education. Their work raises some interesting questions about the relationship of the stages of adult development of adult educators and their effectiveness.

With the decrease in elementary and secondary enrollments, many school teachers have shifted to or have been dumped into adult education as a solution to the teacher unemployment problem. Little is known about the effects of this on the professionalization of the field or on adult student learning outcomes. This issue calls for a major research effort to see whether adult education is being coopted by educators who come from the public schools.

Griffith summarized most of the questions being raised about the characteristics of adult educators and their relationship to effectiveness:

> What kind of teachers (race, sex, I.Q., personality, motivation) are most effective as measured by what instrument in teaching what students (age, sex, I.Q., personality, motivation) about what kind of content (job related, hobby, family, health, reacreation) at what level of cognitive complexity, using what methods and what teaching style in what setting (1970, p. 5)?

There is little evidence that progress toward answering any of these questions has accelerated since 1970.

PROFESSIONAL DEVELOPMENT

The term 'professional development' is not quite adequate to describe this variable because its use has tended to be limited to the traditional full-time professions, and because a good proportion of adult educators can be classified

as part-time or as volunteers. Nevertheless, it is the judgment of many researchers (Carey 1958; Farmer, 1974; Griffith, 1976; Charters and Hilton, 1978) that although adult education may not be a fully developed profession, it is moving in that direction. Vollmer and Mills (1966) defined the basic elements of a profession to include: 1) acquisition of a specialized technique supported by a body of theory; 2) development of a career supported by an association of colleagues; and 3) establishment of community recognition of professional status (p. 243-244). Carlson (1977), in his historical review, observed mixed reactions to the professionalization trend, as have Brunner, Nicholls and Sieber (1955), and Wright (1970). An important question for further research is not only whether the field is becoming more professionalized, but whether efforts to professionalize it have had a positive effect on adult learners.

Peer Interaction and Professional Development

Theoretically, one of the means by which a profession improves its competence is through colleague or peer interaction, mentoring, or peer review. However, Lortie (1975) has noted in sociological studies of school teachers that decisions regarding performance are considered to be highly personal and individualized. Peer evaluation, interaction, and communication about teaching behavior occurs infrequently among school teachers. There is little reason to believe that this is much different for the field of adult education. What could be researched, however, is whether formal or informal peer interaction among adult educators of various types, related to sharing about educator performance, has any affect on learning outcomes. The literature on the dissemination of innovations suggests that informal peer relationships are an effective means of bringing about change (Havelock, 1973). Are there peer networks among adult educators in different institutional settings? If they do exist, do they positively affect learning outcomes? What accounts for their being present or absent in different organizational arrangements? Do these relationships encourage or discourage self evaluation, self-correcting behavior, peer or administrator review? Peer influence may be more important even than inservice education in affecting learning outcomes.

Inservice Education for Adult Educators

The most widespread approach that has been implemented in the field of adult education as a means for achieving professional development and improving learning outcomes has been inservice education, which has included subject matter content, process skills, methods, philosophy of education, and learning theory as well as content about the nature of adult learners. An extensive body of literature has come into being especially focused on adult basic education. Several bibliographies have been assembled (Ulin, 1973; Zinn, 1975). Several authors have focused on the question of the appropriate content for adult education staff development inservice programs (Luke and Ulmer, 1971; Draper, 1973; and Langerman, 1974).

The U.S. Office of Education (USOE) between 1965 and 1975 funded a number of staff development projects in order to upgrade the Adult Basic Education (ABE) enterprise. These efforts have primarily consisted of teacher training institutes in the various USOE Regions. Evaluative research was included as a part of these efforts; and the interim and final reports along with special project reports constitute a body of literature that identifies a number of problems encountered in staff development (U.S. Office of Education, 1968, 1971, 1974). Spear (1976) summarized the efforts of the U.S. Office of Education in staff development in ABE. The early efforts of the Ford Foundation's training of trainers workshops for ABE broke new ground (1966). Additional reports for ABE inservice education are provided by Griffith and Cunningham (1971), by Price (1971) with teachers of Spanish-surname ABE students; by Boggs (1975) with teachers of reading and math ABE students; and by Kircher (1975) with teachers of English as a second language (ESL). Broadwell (1974) and Uthe (1972, 1974) reported projects with teachers of business education; and Dickinson (1975) recorded work with continuing educators in the health professions. Byrnes (1972) described results of efforts with development communicators in Third World countries including Scheffknecht (1971, 1975) on tutor training in Western Europe; Kulick (1973) on training of adult educators in Hungary; Kulick (1975) on training of cultural workers and political educators in Romania; Morris (1974) on training of trainers in the United Kingdom; Khajapeer (1974) on training teachers of farmers in India; and Huuhka (1973) on training adult educators in Finland.

A brief review of these reports of training efforts reflects at least four problems that deserve further research: 1) the problem of providing incentive to adult educators to engage in inservice education, especially since many positions tend not to provide a career ladder; 2) the problem of providing costly inservice education when adult education staff seem to have a very high turnover rate; 3) the problem of trying to bring about behavior and practice change through short-term workshops and institutes; and 4) the problem of getting adult education practitioners to receive help from various types of persons.

Degree Programs in Adult Education

Graduate programs for the education of professional adult educators have been in existence for more than four decades. In 1968 more than 20 universities in the United States and Canada offered the Ph.D. and/or the Ed.D. degree (Houle and Ford, 1972). However, the number has grown to over 80 offering Ph.D., Ed.D., or Masters degrees by 1979, according to Knox (1979). Programs are being added rapidly in many institutions. Speculation suggests that the decline in undergraduate enrollments in universities has stimulated expansion of new graduate fields that may be popular to the returning student. The membership of the Commission on Professors of Adult Education of the Adult Education Association of the U.S.A. has more than doubled in the last ten years to over 300 professors who teach at lease twenty-five percent in an adult education graduate program recognized by their own institution. Griffith and Cloutier (1974) described the academic background of professors and found that less than half of them had doctorates in adult education. The history of graduate study was summarized by Aker (1962) and updated by Veri (1967, 1970). Knox (1973) has described to the Commission on Professors several alternative patterns of developing adult education graduate programs. Burress (1978) polled degree holders of adult education graduate programs about the knowledge, skills and experiences that they felt that graduate work should provide. With the great increase of graduates of degree programs in adult education it is of interest to know on a national scale who has hired them, to do what, and why? Still further, is there any evidence that an increase in graduate degrees in the field has any traceable relationship to improvement of learning on the part of the adult learner?

Credentialing

Another means for affecting the quality of adult educators is credentialing. According to Cameron, Rockhill, and Wright (1976), there are at least three forms of credentialing: 1) accreditation (the formal recognition of a program usually developed in an institution of higher education); 2) certification (formal recognition of an individual as a bona fide and competent practitioner by a professional association or its surrogate); and 3) licensing (the legal recognition of an individual as bona fide and competent to practice a profession). These may be employed serially or concurrently. They are all based on the assumption that it is possible to define effective practice and to set standards. It is clear from a brief review of literature of professors of adult education Wright (1970), Farmer (1974), Mattran (1976), Griffith (1976), Carlson (1977), and Charters and Hilton (1978) that agreement on accreditation or certification is not imminent. Howe (1978, p. 37) gathered data from thirty-six states on requirements for certification for adult educators. Nearly half required adult teachers of academic and credit-bearing subjects to be state certified in the subjects they teach. However, there is little agreement among the states about standards for determining competencies, such as course work, occupational experience, attendance at inservice education, membership and participation in professional organizations, let alone any demonstration of performance. According to Howe, most states not now reporting the use of credentialing are working toward it in some form.

Carlson, after looking at the historical trend toward professionalization in adult education, commented:

> The question confronting adult educators is whether they are willing to look deeply and honestly at what the current type of professionalization is doing to them and to the field of adult education. Are coordination, efficiency, narrow definitions, leadership, compulsion, the extension of schooling, certification, accreditation, and licensing really in the interests of individual freedom and democratic society? If not, is this the type of professionalization with which adult educators should associate themselves? Must quality control always entails serious loss of freedom, choice, and independence? Are there any viable alternatives to the traditional type of professionalization? It may well be that a careful search for alternative approaches to professionalization is one of the most important and largely untouched research areas in the field of adult education (1977, pp. 60-61).

The above-mentioned forms of professional development (peer interaction, inservice education, degree programs, and credentialing) all provide different research areas when linked with the many types of provider institutions,

characteristics of adult educators, roles of educators and students, activity structures, and desired outcomes. Gathering evidence of the effects of each of these approaches to the improvement of learning outcomes is a complex research task well worth addressing.

ADULT LEARNER CHARACTERISTICS

The range and diversity of differences among adult learners is much greater than among children. Adult characteristics vary more than children's because they have lived longer, experienced more personal and social history, and have a greater variability in life perspective as a consequence of living through successive stages of adult development. The roles they perform also are much more complex and varied than are the roles of children. These differences, when related to adult education provider organizations through research may be able to help us understand why various segments of the population are underserved; or when related to data on adult educators also may help us understand relationships that either inhibit or facilitate learning; or when related to subject matter offered by provider organizations compared with subject matter preferred by adult learners may help us understand adult learning needs especially as they relate to adult development and expanded sex roles in the family and in the world of work. It is important to know more about adult learners who are of a different age, sex, racial/ethnic identity, socioeconomic status, employment, handicap, educational achievement/competency level, language development, learning styles, personality, and family responsibility. Failure to appreciate these differences may account for a great deal of wasted educational resources as well as wasted human potential in American society.

Information about the differences among various populations can enable adult educators to:

- understand inhibitors to adult learning in various groups,
- analyze and assess adult learning needs (felt, expressed, comparative, and normative).
- understand unproductive relationships between various types of adult educators and various types of learners,
- plan programs which address specific needs of various populations,
- identify underserved populations and devise ways to provide educational opportunity,
- formulate educational policy among provider organizations and funders.

Some initial research has been conducted on adult learners in the United States. The most extensive national study was reported by Johnstone and Rivera (1965). That study surveyed a national sample of adults and provided information on the age, sex, economic level, and educational backgrounds of adults who engaged in various adult education activities. The informants were asked what subjects they learned on their own, what methods of study they employed and prefer, why they took courses, what obstacles they encountered in taking courses, and many other items. These results, although out of date today, gave the field the first macro-picture of persons who were likely to participate in provider-sponsored adult education activities. Subsequent survey research report have tended to confirm these earlier findings on participation and persistence in American Adult Education (National Center for Education Statistics, 1974, 1976, 1978). Anderson and Darkenwald (1979) analyzed data collected in 1975 by the United States Bureau of the Census for the National Center for Educational Statistics. In summarizing their findings and those of the literature they report:

> In terms of the overall phenomenon of participation (as opposed to participation in specific activities), sex, race, marital status, and employment status have little utility as predictor variables. Age, however, appears to be a major factor that is largely independent of other associated variables. Another clear finding is that suburban residents are more likely to participate than are urban residents, and both these groups are more likely to participate than are small town and rural residents. Another geographical factor is region, with participation considerably higher in the Western states--and this is true even when educational attainment is controlled. In regard to the components of socioeconomic status, educational attainment appears to exert a large independent effect and is perhaps, along with age, the most potent predictor of participation. Occupational status also seems to have a modest direct effect on participation, and family income to have some effect, but probably less than that of occupation (p. 13).

In regard to persistence in adult education, Anderson and Darkenwald (1979) present the following summary of findings.

> While there have been many modest studies of persistence and dropout behavior, most have employed small samples and crude data analysis techniques. The available research, however, suggests that some of the same factors that are positively related to participation are similarly related to persistence. Thus we might expect people with higher levels of educational attainment and income to persist in adult education and people of minority racial status not to persist to the same extent as others. The effects of age on persistence are not

> clear from the prior research. There has been even less research on satisfaction. Little is known about who is satisfied or dissatisfied with adult education and why (p. 14).

However, these findings should not lead researchers to assume that the most important variables have been identified. Anderson and Darkenwald (1979) warn that:

> Despite a very large and respresentative sample and data on a large number of seemingly important variables, only 10 percent of the variance associated with participation and with persistence could be accounted for statistically. In other words, 90 percent of whatever it is that leads adults to participate in and drop out from adult education has not been identified by this or by other similar studies conducted in the past (p. 5).

This research situation does not call for more descriptive surveys comparing dropouts and persisters on variables that may or may not be meaningful. What appears to be called for is research that attempts to develop or test conceptual frameworks that have explanatory and predictive utility. Boshier's work (1973, 1977) on the concept of congruence between learners' expectations and the characteristics of learning environments, and Irish's work (1978) on the relationship of persistence to the net reinforcement of class attendance, are examples of conceptually grounded research. If researchers want to explain and predict participation and persistence in adult education, they need to emply more sophisticated conceptions of the participation process that include more personal and situational variables such as attitudes toward education, changes in life situations, awareness of educational opportunities, and cultural norms. The need assessment studies on a wide variety of populations represent an additional type of research on adult learner characteristics. The U.S. Office of Education has been a prime sponsor of studies interested in addressing the learning needs of adults who are functionally illiterate. According to the Comptroller General of the United States (1975, pp. 4-5), in 1975 there were 57 million adults, sixteen years of age and older, in the United States who had not earned a high school diploma or a General Educational Development high school equivalency certificate. Only about one percent of the Adult Basic Education program's estimated target population of these 57 million adults and four percent of the 15 million adults with less than eight years of school have participated in any given year. Mezirow, Darkenwald, and Knox (1975) have described several dynamics operating in Adult Basic Education.

A significant amount of research effort has been invested in defining the lack of competencies of these underserved adult learners. The Adult Performance Level Program (APL) and the tests it has produced are the results of efforts initiated and supported by the U.S. Office of Education to improve the teaching and testing of adults enrolled in federally supported Adult Basic Education programs. Griffith and Cervero (1977) have provided a critique of recent work that has been done on the adult performance level (APL) approach to needs assessment (Division of Adult and Continuing Education, The Texas Education Agency, The University of Texas, 1972). Griffith and Cervero were critical about the prime source of knowledge used to define areas of competence and the minimum adult performance levels. The study assumed that the experiences, accumulated data, and reports of professionals dealing with minimally performing adults were sufficient to set the APL criteria. However, APL criteria would be much more valid if they had been derived from the 57 million population presumed to be in need rather than deriving criteria from the collective opinions of teachers who have been serving one percent of those in need. Such research may confirm the work of the APL study; however, more direct studies of differences in various populations are needed.

Although more knowledge is desirable about various populations in relationship to a number of the other variables shown in the conceptual framework in figure 1 (p. 8), the relationship between characteristics of adult learners and the characteristics of adult educators is crucial. Except for Darkenwald's study (1975) on the obvious relationship between teacher's race and holding power with black adult students, there is a lack of knowledge about the effects of homophyly (resemblance or common ancestry) between adult educators and adult learners. This question deserves some attention in the light of the massive ABE task and the fact that according to the 1970 U.S. Census (see Table 2, p. 24) there are only 5,870 non white adult education teachers out of 51,635.

SUBJECT MATTER

One of the variables obviously related to educational outcomes is the nature and content of the subject matter being learned. The exhaustive nature of the concerns of adults results in a great variety of classifications systems being used in adult education. Uniformity of terminology is lacking in this area as well as in others, and this lack makes comparison and codification of

data across provider organizations difficult. Every provider system has its own classification. The categories tend not to be similar to those used in secondary schools and higher education (these latter closely relate to the traditional disciplines of knowledge); rather, they tend to be based on major roles that an adult performs or on types of problems being addressed. This reflects the belief among many adult educators that an adult's orientation to education is problem centered and not subject centered for postponed application (Knowles, 1970, p. 5). A comparison of two content/subject matter typologies will illustrate these differences. The Learning Opportunities for Adults: Handbook of Descriptors, which is being prepared by the National Center for Higher Education Management Systems for the National Center for Education Statistics, reflects more of the traditional disciplines approach:

Knowledge Subject Matter

1. Agriculture and Renewable Natural Resources
2. Architecture and Environmental Design
3. Business
4. Communications
5. Computer Science and Data Processing
6. Engineering/Engineering Technology
7. Arts, Visual and Performing
8. Health Care/Sciences
9. Home Economics
10. Language/Linguistics/Literature
11. Law
12. Libraries and Museums
13. Mathematical Sciences
14. Police Science (1977, p. 3-9)

In contrast to the above typology, adult educators who examined programs on a comparative basis at the Exeter Conference (the First International Conference on Comparative Study of Adult Education) used five categories which are oriented toward the adult's role:

Categories of Adult Education

1. Remedial Education: Fundamental and Literacy Education (A prerequisite for all other kinds of adult education.)
2. Education for Vocational, Technical, and Professional Competence. (This may either be to prepare an adult for a first job, for a new job, or continuing or further education for an adult to keep him up to date on new developments in his occupation or profession.)
3. Education for Health, Welfare, and Family Living (including all kinds of health, family, consumer, planned parenthood, hygiene, family relations, child-care, etc.).
4. Education for Civic, Political and Community Competence (including all kinds of educational programs about government, community, political education, etc.).

5. Education for Self-Fulfillment (including all kinds of liberal education programs, education in music, the arts, dance, theater, literature, arts and crafts, whether brief or long-term. All programs which are aimed primarily at learning for the sake of learning rather than to achieve the other aims included in the other four categories above.) (Liverright and Haygood, 1966, p. 9-10).

The program areas which were chosen as chapter titles for the 1970 Handbook of Adult Education provide an American version of the Exeter Papers' categories:

1. Adult Basic Education
2. Human Relations - Sensitivity Training
3. Education for Family Life
4. Education for Social and Public Responsibility
5. Vocational-Technical Education
6. Continuing Education for the Professors
7. Continuing Education for Women
8. Education for Self-Fulfillment (Smith, Aker, and Kidd, 1970, pp. 407-527).

In the 1980 Handbook Series of the Adult Education Association of the U.S.A. there will be a volume by Boone, Shearon, and White, Programs in Adult Education (in press), which will reflect the current definition problems and alternative typologies.

These distinctions are important for comparative research across provider organizations in order to make generalizations about the quality and quantity of information, knowledge skills aspirations, and values that are the focus of adult learning at a given time. Even more interesting, however, is the use of subject matter categories in relation to the extent of effort, competence, and characteristics of adult educators. These findings might be useful in accounting for some learning outcomes as well as possible pinpointing where additional recruitment or staff development efforts should be concentrated.

RESOURCES: PHYSICAL AND FINANCIAL

In adult education the range of physical facilities is much greater than in schools. This difference is due not only to the greater diversity of provider organizations, but also to the use of the community itself as a learning laboratory in nonformal adult education.

Physical Resources

Facilities consist of any physical structure or space required by the provider organization for the performance of its programs and related activities. Facilities have location, area, provision of access, and characteristics that serve various activity structures. Types of facilities include:

1. Facilities designed especially for education purposes (classrooms, laboratories, lecture halls, learning assistance centers, study rooms, consulting rooms),
2. Facilities designed for multi-purpose use (residences, hotels, conference centers, camps, parks and playgrounds, wilderness, theaters and auditoriums, churches),
3. Facilities designed for purposes other than education that can be used in conjunction with education (factories/farms, workshops, offices/businesses, shopping centers, hospitals/clincs, restaurants, transportation vehicles).

The National Center for Higher Education Management Systems (1977, p. 4-70) lists equipment and collections as physical resources in addition to facilities. Equipment consists of any physical resources (excluding facilities) that benefit the organization for more than one operating period. Equipment includes both instructional and other such as furniture, machinery, tools, and vehicles. Collections consist of any accumulation of materials gathered for instruction, study, comparison, or exhibition usually in libraries, musuems, and vistor centers. These include printed/pictorial materials; nonprint materials requiring special equipment or magnification for use such as computer materials, electronic display materials, audio materials, microfiche; art materials such as paintings, sculpture; artifacts, historical objects and materials; and collections that cannot be classified in one of the above categories.

Financial Resources

Although funding for elementary, secondary, and higher education is considered to be highly complex, the funding patterns for adult education are probably even more complex and diverse. Since nationwide reporting of data on adult education across the many types of provider organizations does not occur, there is no comprehensive and accurate picture of financial sources. Traditionally, adult education has been financed primarily by contributions, donations, tuition and fees from learners, with the exception of the Cooperative Extension service, which was for many years the only major educational effort funded by the federal government. Public school adult education has

derived its funds from local property taxes, state and federal aid, and student fees (Johnson, 1969). The patterns vary widely according to provider organizations. Today, the federal government funds more than fifty different programs for the education of adults who have completed less than twelve years of education and spends several billion dollars a year in support of other programs for adult learners (National Advisory Council on Adult Education, 1975). Proposals for more programs and for higher funding levels increase each year under a variety of categories including the term 'Lifelong Learning' (Christoffel, 1978). Kreitlow, (1975) and others have wondered about whether federal funding has been a boon or a boondoggle for the field.

Categories for collecting financial information generally are listed by sources of revenue and expeenditures. The primary types of sources include tuition and fees; taxes; federal, state, and local government appropriations to individuals; federal government categorical and block grants; state grants and contracts; private gifts, grants, and contracts; investment for auxiliary enterprises including grass roots fund raising. Expenditures can be classified into two categories: expenditures by program, which include instructions expenditures, service/resource providing expenditures, learner assistance expenditures; and expenditures by object, which include personnel compensation, supplies and services, capital outlay, and payments to learners (National Center for Higher Education Management Systems, 1977, pp. 4-73-76).

The point of gathering data on physical and financial resources across adult educator provider systems is that it can then be used to explore relationships of equity according to different types of learners. It can also be used to determine if there is a relationship between resources and the characteristics of adult educators who are providing services to various types of learners. The relationship of public and private resources to the quality of adult education and the nature of educational outcomes is a promising research area with policy implications.

EDUCATOR AND LEARNER ROLES

In figure 1 (p. 8), the variables Role of Learner, Role of Educator, and Activity Structures are shown as causally interrelated within the larger category called 'process.' In contrast to inputs, process is defined as a transformation of inputs through interaction. The nature of the interactions and transformations are viewed as being most determined by role and activity structures.

Learner Roles

Bronfenbrenner and Hamilton hypothesize that learning is facilitated if the learner is placed in roles that entail execution of the activities to be learned. They suggest that this may appear trivial and inconsequential; however, they state "that it is much more mighty than it appears, equal if not exceeding in power the efficacy of such over-researched influence mechanisms as reinforcement and modeling" (1978, p. 19). The possible dramatic capacity of role allocation to shape -- even to compel -- human behavior and development has not been researched in classroom or school settings. However, it is typical for adult learners to engage in performing a wide diversity of roles associated with learning activity structures much more diverse than is usually allocated by teachers in elementary, secondary, and higher education. The following list illustrates the diversity of student roles: friend, tutee/tutor, intern, employee trainee, volunteer trainee, group member, advocate, planner, citizen decision maker, evaluator. Simulated roles also are often used in adult education. To what extent can researchers account for effective learner outcomes based on the learner roles that adult educators allocate to their adult students?

Educator Roles

To what extent is learning affected by adult educators performing different roles? In institutional settings, roles performed by educators tend to be differentiated (i.e., administrator, teacher, counselor, and planner). In adult education, where both institutional and noninstitutional settings often are overlapping, these roles may be performed sequentially by the same person. In addition there are many other roles performed by adult educators, such as friend, tutor, mentor, facilitator/process helper/enabler, broker/linker/coordinator, trainer, knowledge builder/researcher, advocate/change agent/catalyst, consultant/advisor/counselor/resource person, educator manager, and administrator at the state and national levels (Havelock, 1973; Dechler, Farmer, and Sheats, 1975; and Smith and Haverkamp, 1977). Very little is known in adult education about the relative effects on learning outcomes of various roles being performed by adult educators.

Perhaps one of the explanations for the development of a greater variety of roles in adult education than have developed in elementary and secondary education is the difference in the exercise of control. Sociologists and

educators alike stress the importance of teacher control and authority related to effective learner outcomes in elementary and secondary education where students are involuntary clientele (Cohen, 1978, p. 10). Adults, on the other hand, are not only voluntary learners, for the most part, but also may view themselves as having more control over not only what they will learn but how they will learn it. Perhaps adult educators have been induced into selecting and allocating roles that are more likely to share authority in order to maintain positive teacher/learner transactions. The issue of control appears to be a critical consideration in the effective allocation of roles to both adult educators and adult learners. Its relationship to learning readiness, motivation, and productivity should be further pursued. Some interesting research hypotheses can be generated when alternative roles of both educators and learners are researched in relationship to the characteristics of adult educators and adult learners to discover if any combinations relate to effective learning outcomes.

ACTIVITY STRUCTURE

The third process variable viewed as having a potent relationship to learning outcomes consists of various activity structures.

An activity is what a person in a setting does over a period of time. It is not a single act but a pattern of purposeful acts which has structure. Activity structures . . . "shape an individual's experience by ordering the temporal and reciprocal relations among phenomena and actions? (Bossert, 1978, P. 10). Activities mold the way individuals experience environments, objects, others, and themselves. Activity structures are important for adult education research because there is too little known about the interrelationship between activity structures, types of learners, learning styles, learner involvement, and effective learner outcomes. Even less is known about which types of adult educators tend to propose, select, or impose various activity structures on or with various types of students. Bossert states that; "if teachers have a technology, even a rudimentary one, part of it consists of the choices that are made about the types of scheduling of instructional activities" (1978, p. 25). The nature of these activities, their scheduling and sequencing in conjunction with the use of various resources may either inhibit or facilitate various types of learner outcomes for different types of learners. In order to conduct

further research which could link various activity structures with other variables on the conceptual framework proposed in this paper, it is necessary to describe the dimensions along which activity structures differ.

Number of Persons Who Participate

Learning activities may be either self-directed, one-on-one, or in groups. The extent of self-directed adult education was relatively unknown before 1971. However, the adult learning project research conducted by Tough (1971, 1978) and many others has revealed that:

> . . . about 20 percent of all learning projects are planned by a "professional" - someone trained, paid, or institutionally designated to facilitate the learning. The professional operates in a group (10 percent), in a one-to-one situation (7 percent), or indirectly through completely preprogrammed nonhuman resources such as programmed instruction or a television series (3 percent). In the other 80 percent of all learning projects, the detailed day-to-day planning is handled by an "amateur." This is usually the learner himself or herself (73 percent), but occasionally is a friend (3 percent) or a group of peers (4 percent). (1978, pp. 252-253).

Amount of Time

This dimension of activity structures not only reflects the amount of interest, endurance, and persistence of learners, but is strongly related to various types of outcomes. According to Tough, (1978) adults spend a remarkable amount of time each year at their major efforts to learn. "A adult learning project is a highly deliberate effort to gain and retain certain definite knowledge and skill, or to change in some other way. To be included, a series of related learning sessions (episodes in which the person's primary intention was to learn) must add up to at least seven hours." (p. 250). In fact, a typical learning effort requires 100 hours, and the typical adult conducts five of them a year, 500 hours altogether. Incidentally, only about 5 percent of learning projects are for credit, certificate, or degree.

Pace of Activity

Activities vary according to the degree of time pressure, whether leisurely or accelerated. This dimension is related to the degree of tension or stress experienced by the learner.

Complexity and Difficulty

Activities vary according to their complexity, difficulty, and the degree to which cognitive processes of analysis, synthesis, and evaluation are required in addition to knowledge and comprehension.

Method

There are at least five families of methods which are not mutually exclusive.

- Information Processing (lecture, symposium, panel, debate, reading, examination)
- Social Interaction (discussion, buzz groups, interviews, role play, group games)
- Creative Thinking and Self Expression (recital, dance, drama, construction, fabrication, creative writing, singing)
- Demonstration and Practice (observation, guided response, repetition, feedback)
- Search and Discovery (field trips, observations, experiments, problem solving, games and puzzles, projects)

Communication Media

Activities vary according to the extent to which they may be mediated -- that is, the extent communication technology is used with methods, or is used to relate to a learner indirectly. Theoretically, the combination of media with method produces a higher intensity of involvement. Examples of media that can be used to assist instruction are books, pamphlets, magazines, xerox or mimeograph handouts, film, film strips, slides, tape recorder, video tape, television, overhead projection, chalk board, newsprint, computers, and telephones. Ohliger and Guenlette (1975) provide alternate categories and an extensive biblography.

Degree of Choice

Activity structures vary according to the degree of choice provided learners among a diversity of tasks. Some activities require all participants to perform the same task at the same time. Other activities allow learners to work independently, concurrently, or to coordinate their separate tasks. Activities also vary according to whether there is a prescribed outcome or whether a variety of anticipated outcomes is acceptable. The former can be described as "errorless instruction" while the latter can be described as "serendipitous instruction."

Research on separate actions or single methods apart from the nature of activity structures and characteristics of learners has not been too helpful. In addition, comparing nonformal with formal adult education without moving to descriptions about how learners actually spend their time and how they relate to themselves, each other, and to adult educators has not been very productive. What is likely to be more worthwhile for considering congruence is the study of different activity structures in combination with other variables such as learning theory and philosophy of education. However, the relationship between various characteristics of adult educators and the activity structures which they tend to facilitate appears to be a most interesting line of inquiry.

OUTCOMES

In Figure 1: A Conceptual Framework for Clarifying Researchable Relationships in the Provision of Adult Education (p. 8), the section labeled 'Outcomes' refers to the end results, impact, product, or consequence of the educational process. A causal inference is implied. The concept of 'outcome' is not meant to be limited to positive results because responsible, systems-oriented research should provide descriptions and explanations for outcomes to various persons within and outside educational program efforts, whether such outcomes are positive or negative. Sometimes results that are positive for some persons, groups, or organizations are at the same time negative for others. In addition, the term outcome is meant to include results that may have been intended and specified as educational objectives, as well as consequences that may not have been intended. Limiting the research focus to outcomes that are beneficial or that have been specified as educational objectives prompted Scriven (1972) to call for 'goal-free program evaluation' to remove tunnel vision from the eyes of educational researchers.

Immediate, Intermediate, and Ultimate Outcomes

In adult education, most learning is used by the learners to solve problems or to make changes in their situations. These changes often are combined with the action resulting from others' learning or from other forces and events. The cumulative impact of learning experiences of numbers of adults sometimes brings about changes in the community. Ultimate consequences can be said to

occur when cumulative changes to groups of people and even communities are imputed or verified as having taken place at least in part as a result of learning experiences. These distinctions are shown in figure 5:

Educational Experience	Immediate Educational Outcome	Intermediate Outcome	Ultimate Outcome
Adults engage in learning process	Adults learn knowledge, skills, behavior, attitudes	Adults put to use what they learned. Outcomes from these efforts can be attributed, at least in part, to educational experience	Cumulative efforts of many adult learners brings about a community change which can be attributed, at least in part, to the educational experiences of adult learners

Figure 5: Distinctions between Immediate, Intermediate and Ultimate Consequences (Adapted from Farmer, Sheats, and Deshler, 1972, p. 33).

All too often in educational research, only the immediate educational outcome is analyzed (what people learn), when in fact, the intermediate (results from use of learning) and ultimate outcomes (results to the community) are far more important to society. The linkages, if any, along this chain of relationships provides the justification for the investment of resources in the educational process. Without this evidence, claims of effectiveness are questionable. Evidence for these causal linkages can be gathered in the form of verifiable and/or imputed claims that show that the outcomes occurred, at least in part, to the learning process.

Another distinction about the way outcomes are viewed in adult education is important to explain. Adult education programs are not only directed toward learning outcomes on the part of individuals, but in addition they are often specifically designed to bring about organizational change as well as community change. This complicates the task of the researcher. However, there are some typologies for conceptualizing outcomes at all three levels.

Individual Learning Outcomes

At least three domains of educational objectives for individuals have been identified and proposed for the field of education. These domains can be used not only to set objectives, but also to classify learning outcomes. One is the cognitive domain, which includes outcome levels of achievement in knowledge, comprehension, application, analysis, synthesis, and evaluation (Bloom, 1956). The second is the affective domain, which includes levels of change from receiving, responding, valuing, organization of a value system, to characterization by a value complex (Krathwohl, Bloom, and Masia, 1973). The third is the psychomotor domain, which includes performance levels, beginning with perception of task, set, guided response, and mechanization and ending with a complex overt psychomotor response (Simpson, 1966; Harrow, 1972). In addition to changes in cognitive achievement, affective and characterization valuing, and psychomotor skill learning, adult educators also have noted changes which Mezirow (1978) has termed 'perspective transformation,' which is a structural change in the way persons see themselves and their world. Mezirow suggests that educational researchers should follow the lead of those sociologists and anthropologists who have provided a rich literature on the perspectives of various types of people. Educators who conduct such research could provide descriptions and explanations concerning the role that education may play in perspective transformations.

Group and Organization Learning Outcomes

Although literally only individuals learn, Schon (1975) has suggested that by analogy a researcher can view organizations as learners. Organizational survival depends on learning new patterns of behavior. According to Schon, competence in organizational learning requires that interacting members of the organization continually be able to carry out these tasks:

- Integrate scattered perceptions of organization phenomena.
- Generate and test interpretations of the perceived phenomena and make them ideas in good currency, that is, ideas that generate action within the organization.
- Conjure up new structures and policies designed to remedy dysfunctions and bring these into good currency.
- Respond to conflicts in interpretation and prescriptions through inquiry rather than through bargaining.
- Experiment with new structures and policies (1975, pp. 2-16).

The outcomes from group and organization learning include: 1) changes in groups' and organizations' common perceptions about what is occurring within the respective organizations; 2) changes in ideas in good currency which generate action; 3) changes in policies and organizational structures that affect operations; 4) changes in communication patterns and information flow within the organization and between the organization and its environment. Social systems concepts can also be used to describe and explain deliberate attempts of a group or organization to affect organization change (Peters and Deshler, 1978).

Community Level Learning Outcomes

Citizens, members of boards and agencies, community decision makers in local, state, and federal government all contribute to community level learning outcomes. The content of community level learning usually consists of: 1) the nature of issues, including technological aspects, that affect the public interest; 2) process skills and decision rules that govern decision-making; 3) the extent and nature of community need; 4) the extent and nature of community resources, including leadership; 5) the potential effect of decisions on various populations and organizations; and 6) the basis for making value judgments in a political situation.

Bennett (1975) has suggested several outcomes that may occur at the community level, at least in part, as a result of community development efforts in Cooperative Extension. They include: 1) changes in laws and regulations; 2) changes in allocation of resources; 3) changes in the provision of services or facilities; 4) changes in patterns of citizen civic behavior or the reduction, prevention, or alleviation of bad conditions; 5) changes in organization structures which increase citizen participation in public decision-making; and 6) changes in interorganizational relations. Political scientists have studied these outcomes using theories based on control and power relationships and the role of citizen participation. Educators might do well to study these outcomes to more fully understand the contribution of adult education to the political process. For example, Farmer and Knox (1977) and Deshler, Farmer, and Sheats (1975) in studies of Title I (Higher Education Act, 1965) focused on learning outcomes at the community level. In addition, Wright (forthcoming) has described the nature of community level learning outcomes.

Theoretically, all the other variables shown in figure 4 (p. 27) are antecedents to learning outcomes. However, what is called for is the selection of variables for research on theory that may account for learning outcome differences for different learners. The characteristics of adult educators as a variable should receive a high priority for further research. Outcomes are central to what education is all about, and educational researchers need to know much more about the major variables that are most strongly related to outcomes. This is especially true for the many forms of adult education in American society.

RESEARCH DIRECTIONS AND APPROACHES

In the first section of this paper, several explanations were provided for the present lack of theoretical cohesiveness and the atheoretical quality of much of adult education research. The second section of the paper has provided a conceptual framework for clarifying researchable relationships in the provision of adult education. This third section will provide two suggestions about how Figure 1: A Conceptual Framework for Clarifying Researchable Relationships in the Provision of Adult Education (p. 8) can be used. Research questions concerning adult educator effectiveness are discussed in this section as an example of how the conceptual framework can be used to generate researchable relationships.

THE USE OF THE CONCEPTUAL FRAMEWORK

There are two primary uses of a conceptual framework such as the one proposed. The first use is to generate models in the area of research interest. The second primary use of a conceptual framework is as a tool to aid the conduct of meta-research -- that is, research on research.

Generating Models

Typologies and taxonomies are the elementary building blocks that assist in forming models, which in turn contribute to theory building (Boshier, 1978). The typologies that have been presented in the second section of this paper for each of the variables selected and represented in figure 1 were not meant to be exhaustive, but to suggest that these or other typologies can be researched empirically by relating to a considerable number of variable intersections, thereby creating a saturated variable approach to research. However, there

are limitations to such an approach. In the first place, it is not intended that research should be conducted along all the infinite number of possible correlations. That is a rationalistic time waster and an unsound research approach. Kerlinger and Pedhazur (1973) in discussing saturated variable approaches suggests:

> . . . That as long as all variables are connected by paths and all path coefficients are employed, the R matrix can be reproduced regardless of the causal model formulated by the researcher. Consequently, the reproduction of the R matrix when all the path coefficients are used is of no help in testing a specific theoretical model (p. 317).

The value of a saturated variable approach does not lie in its being used to conduct research on all the possible variables, but in its use as a conceptual framework, a holistic picture or map from which the researcher may select the most promising relationships to create models depicting specific relationships, which can then be empirically researched.

Secondly, the proposed conceptual framework depicts relationships among a number of variables which, when researched, may turn out to be very weak or non-existent for various adult education provider systems. Research progress is likely to be made in the field of adult education if lines of relationships on saturated variable models, such as the one proposed, can be eliminated through research, thereby strengthening the development of theories about the relationships of the major variables -- relationships that are more likely to be operative across the wide diversity of adult education.

Another assumption about generating models from the conceptual framework is that the researcher will begin with one variable as dependent and view the others as possible dependent variables. It is also assumed that the researcher, in constructing models, will propose various types of researchable relationships including causal chains, inventories of effects, causal symmetry or asymmetry, reciprocal causality, causal models with alternative paths, and causal loops, to name a few (Blalock, 1969, pp. 78-85). The arrangements among variables inside blocks in figure 1 (p. 8) are hypothesized and not based on strong research evidence.

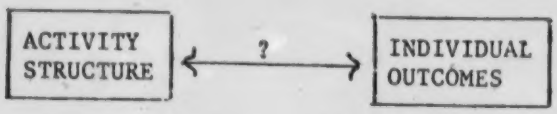
As the framework indicates, the political, cultural, historical, and social environmental milieu is basic background to the whole system. Philosophy of education and learning theory are depicted as arising out of this 'environment' to directly influence the input, process, and outcome blocks of the framework.

The variables within each of the three main blocks are depicted as being interrelated. Other variables could be added, and the relative strength of variables may be hypothesized for various research efforts. From a research standpoint, the interactions can be looked at both between variables within the same block, such as the relationship between various provider organizations and the characteristics of adult educators (input block), or between variables across blocks, such as the relationship of various characteristics of adult educators (input variable) and various activity structures (process variable) and certain community level outcomes (outcome variable). The relationships studied may be limited to two variables (Is A related to B?) or to more complex relationships (Is A related to B under conditions C and D?) (Is A and B related to C under conditions D and E?).

This, of course, is only one way to go about generating researchable questions. However, it may be helpful to those who favor a mixed scanning approach to decision-making. A mixed-scanning approach suggests that the decision maker not take the time to engage in a rationalistic, full-blown examination of all the possible alternatives, but instead take a quick overview of the major possibilities while scanning a general territory of interest, much as a reconnaissance pilot might use a wide-angle camera lens. Such a wide-angle view is not sufficient, however, requiring that a telephoto lens be added to inspect specific features of the territory in greater detail. Decisions are then made to proceed with only the most promising approaches, the researcher taking into consideration both the wide-angle picture and information derived from the telephoto pictures. The alteration between the larger view and a concentration on detail affords the use of the best features of rationalistic and incremental decision-making (Etzioni, 1968, pp. 254-285). The proposed conceptual frame was designed with this decision-making approach in mind so that specific variables (or classes of variables) can be looked at to increase understanding in the area of interest, yet at the same time to see that area of interest in relation to the system as a whole.

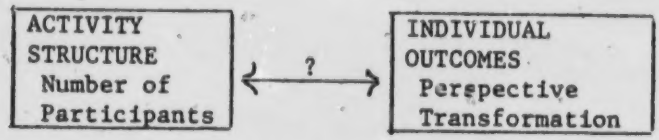
An example of how a researcher might proceed in using the conceptual framework may be clarified by looking at a specific researchable question that might be asked. For instance, the question, "What activity structures (process) are related to effective learning outcomes for individuals?" may be (and often is)

asked. A look at the model indicates that this question directly uses two components - structure and outcome.



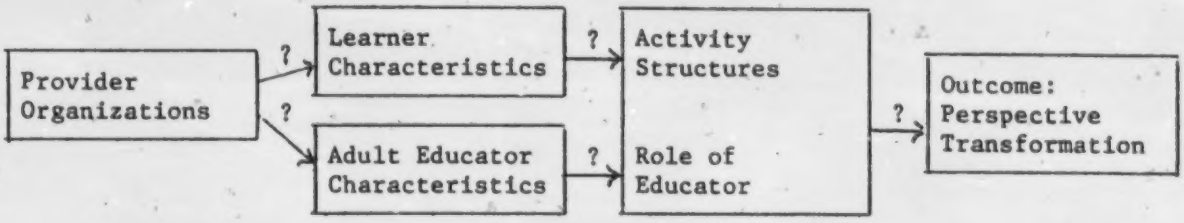
The researcher is asking if there is a relationship between the two. A closer examination of these variables indicates that these are really groups of variables and the subcomponents of each are really limited only by the researcher's selection of items from one or more typologies. Other variables such as philosophy of education are likely to influence the selection of items that are considered to be most important for researching a specific phenomenon.

This research question can go in two directions. It can be further simplified, or it can be made more complex. A look at the model helps to indicate how to do both. First, to simplify the question, the researcher need only identify one component in each category. For instance: "Does the number of participants (self directed, one-on-one, or in groups) directly affect perspective transformation?"



This question simplifies the original one and allows the researcher to focus on a single causal relationship. The finding in this case could have relevance to a number of adult education programs that assist individuals in making perspective transformations. If it is determined that perspective transformation is best enabled by self-directed learning, then formal programs are a waste of effort for that particular outcome. On the other hand, the conceptual framework suggests that other variables could well be considered. For instance, the researcher may want to consider other activity structures that may be related to perspective transformation. The question could be asked two different ways. First, the researcher might want to begin with persons who have experienced perspective transformations and attempt to trace out whatever variables may have contributed, including activity structures; or second, the researcher may want to begin with various activity structures and determine which types of individual outcomes, including perspective transformation, are related

causally. Still other variables could be included, such as the characteristics of adult educators who may be performing various roles with learners who are not self-directed to find out if various adult educator characteristics contribute to perspective transformation. The question then might be expanded to, "What characteristics of adult educators in combinations with different roles most influence perspective transformation?" Still further, the question could be expanded to include the various provider organizations likely to facilitate this particular outcome and the various types of learners likely to be engaged in learning for the purpose of perspective transformation. The above model could then be diagrammed as shown below if the question is considered to be a simple causal chain.



The more components and relationships considered, the more the researcher is forced to raise questions concerning priorities among variables and to seek more fundamental patterns in theory as to why such relationships are considered to exist, beyond the simple two-way relationship.

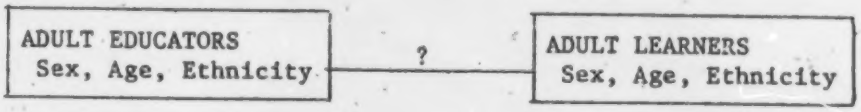
Model building from the proposed conceptual framework can commence, beginning with any two variable relationships and then including other variables. For example, consider the focus that was raised at the outset of this paper -- the effectiveness of the adult educator. If the researcher begins with the background characteristics of adult educators and then raises researchable questions in relationship to other variables, the simple two-way variable relationships appear as follows:

Adult Educators ---------- Adult Learners
Adult Educators ---------- Subject Matter
Adult Educators ---------- Provider Organizations
Adult Educators ---------- Resources
Adult Educators ---------- Professional Development
Adult Educators ---------- Political, Cultural Environment
Adult Educators ---------- Philosophy of Education
Adult Educators ---------- Learning Theory

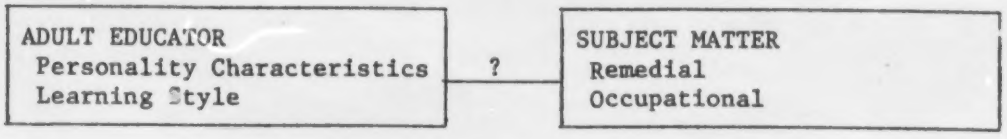
Adult Educators ---------- Educator Role
Adult Educators ---------- Learner Role
Adult Educators ---------- Activity Structures
Adult Educators ---------- Outcomes

These two-way relationships could be proposed as research questions with the following format: "Is A related to B?" In this relationship, however, the variables mentioned are really clusters of variables. In defining the items within each variable cluster that deserve research attention, the researcher must rely on informal observations, other studies, or theories. For instance, when relating the variable 'adult educators' to the variable 'adult learner', the researcher may want to look only at the relationship of age, sex, and ethnicity of both educators and learners if homophyly (resemblence or common ancestry) is considered to be an important contributor to a positive teacher/learner transaction. Because the 'clusters' of items within each major variable provide an enormous number of potential research possibilities, we have chosen to describe only a sample of research questions that may be derived from the proposed framework. The following are examples of just two-way relationships listed above:

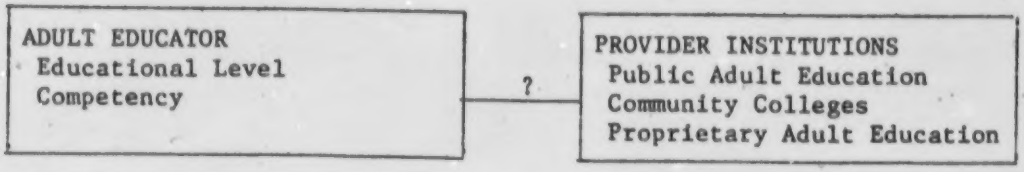
A) To what extent do the characteristics of sex, age, and ethnicity of adult educators relate to the sex, age, and ethnicity of adult learners?



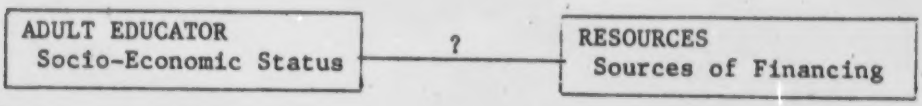
B) Are personality characteristics and learning styles of adult educators related to subject matter being taught in remedial and occupational adult education?



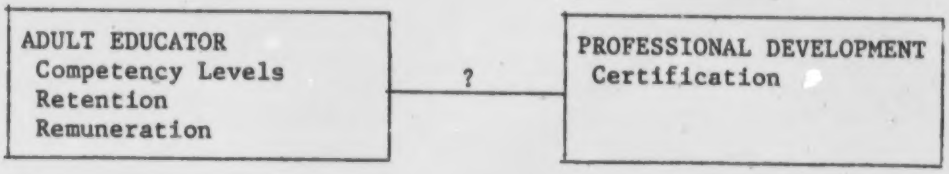
C) Are differences in educational level and competency of adult educators related to the provider institutions of public adult education, community colleges, and proprietary adult education?



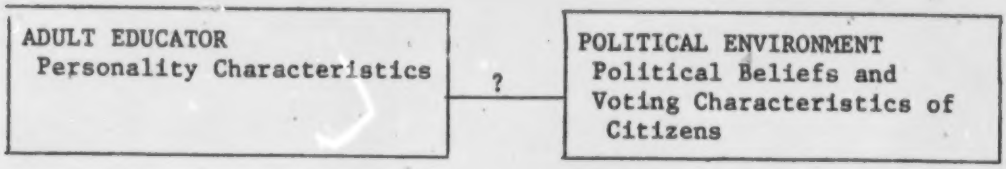
D) Are the socio-economic status levels of adult educators related to the sources of financing of adult education?



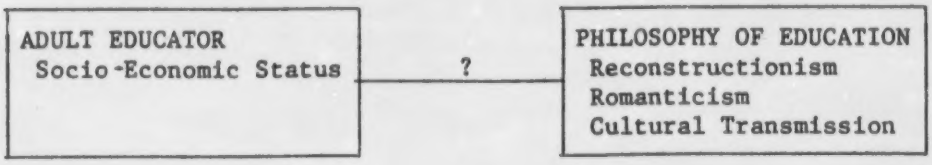
E) Are there any differences in competency levels, retention, and remuneration for adult educators who have certification status?



F) Are personality characteristics and ethnicity of adult educators related to political beliefs and voting characteristics of citizens who live in the community in which educators work?

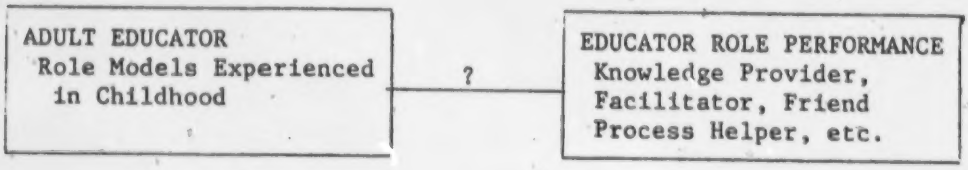


G) Are socio-economic status levels of adult educators related to the philosophy of education that they may hold (reconstructionism, romanticism, cultural transmission)?

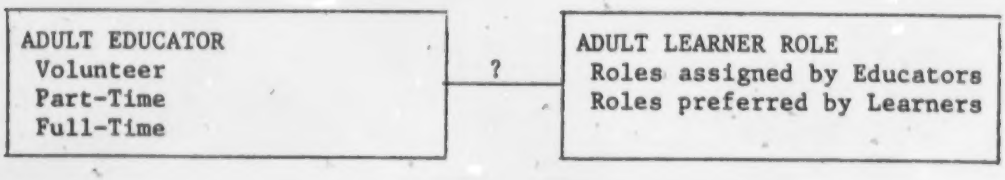


H) Are the learning styles of adult educators related to behaviorist, gestalt, or humanistic learning theories to which they may subscribe?

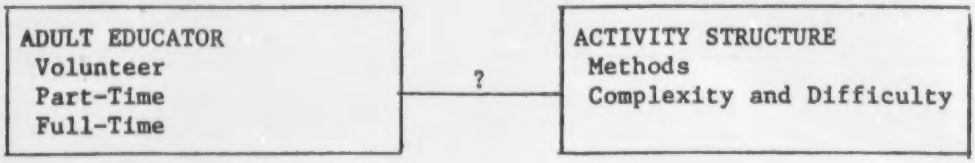
I) Does the educational background (role models of teachers experienced in elementary and secondary school) of adult educators relate to the roles that adult educators practice (knowledge provider, facilitator, friend, process helper, etc.)?



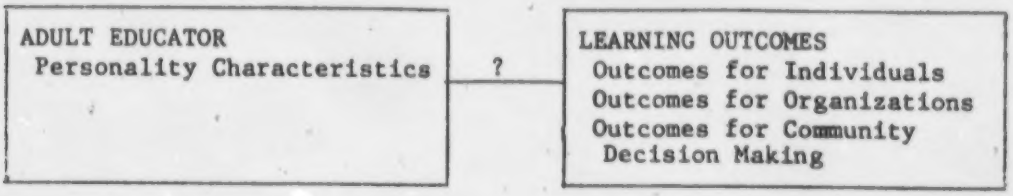
J) Do volunteer, part-time, and full-time adult educators differ in relationship to the roles they assign adult learners and the roles adult learners prefer to perform while learning?



K) Do volunteer, part-time, and full-time adult educators differ in relationship to methods, complexity and difficulty of activity structures which they provide learners?



L) Do personality characteristics of adult educators relate to the nature of learning outcomes for individuals, for organizations, for community decision-making?

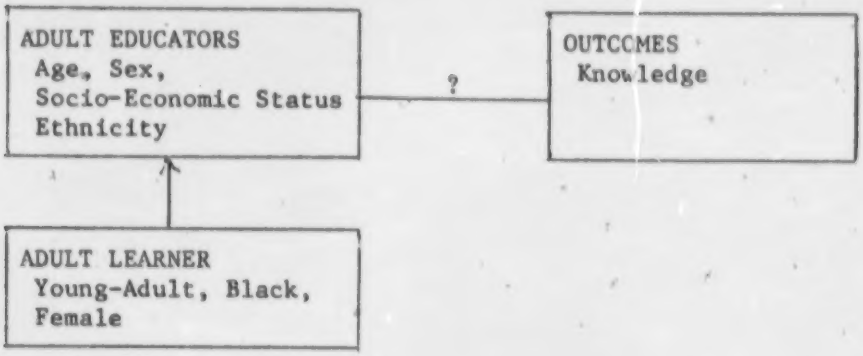


The following three-way relationships listed below are, again, only examples of research questions that can be produced by using the model. These relationships can be thought of as: "Is A related to B under conditions C?" The condition in this case is decided upon in advance and is therefore known before the onset of the experiment or research project. A sample of these relationships are as follows:

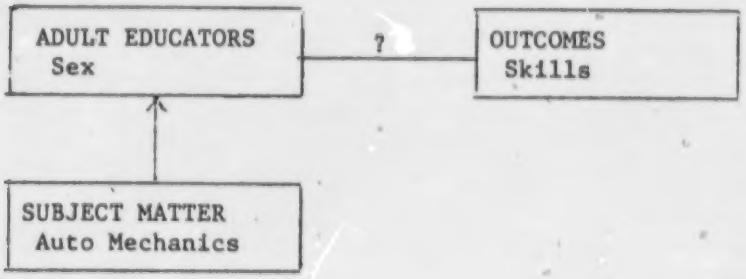
Adult Educators ---- Outcomes ---- Adult Learners
Adult Educators ---- Outcomes ---- Subject Matter
Adult Educators ---- Outcomes ---- Provider Organizations
Adult Educators ---- Outcomes ---- Resources
Adult Educators ---- Outcomes ---- Professional Development
Adult Educators ---- Outcomes ---- Political, Cultural Environment
Adult Educators ---- Outcomes ---- Philosophy of Education
Adult Educators ---- Outcomes ---- Learning Theory
Adult Educators ---- Outcomes ---- Educator Role
Adult Educators ---- Outcomes ---- Learner Role
Adult Educators ---- Outcomes ---- Activity Structures

All of these relationships involve questions aimed at futhering our understanding of who Adult Educators are (demographics) and know who they are relates to their effectiveness as teachers under a variety of conditions. Here are some examples of research educators questions that can be asked from the relationships listed above:

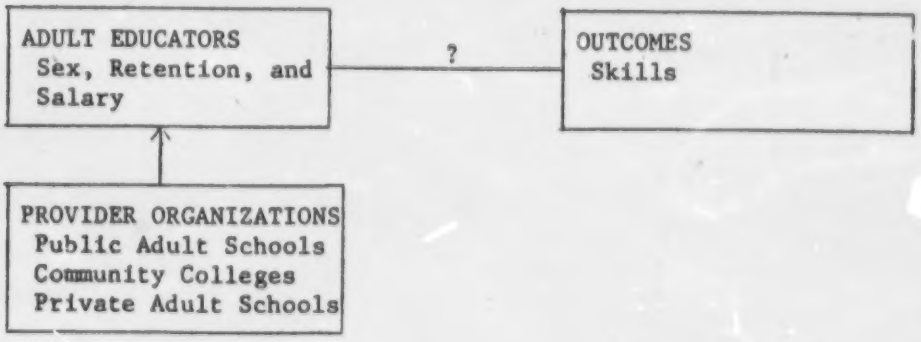
A) Are age, sex, socio-economic status, and ethnicity of adult educators related to knowledge attainment when the learners are young-adult, black, females?



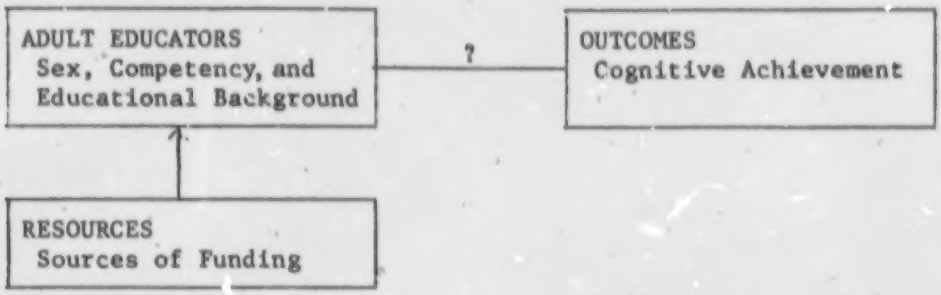
B) Is sex of adult educators related to skill attainment of students in auto mechanics programs?



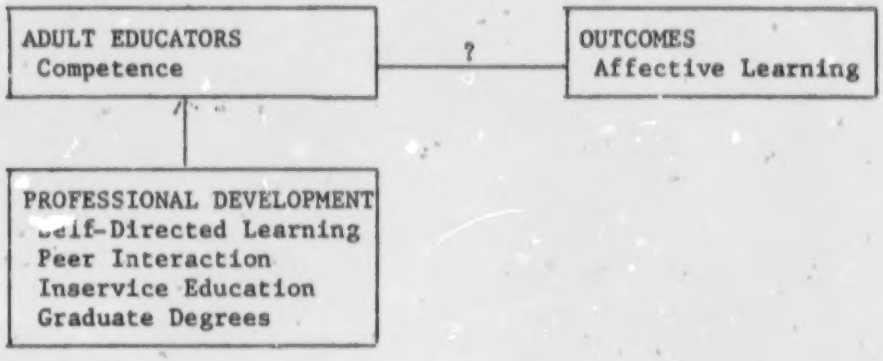
C) Are sex, retention, and salary characteristics of adult educators related to skill achievement among learners in public adult schools, community colleges, and private adult schools?



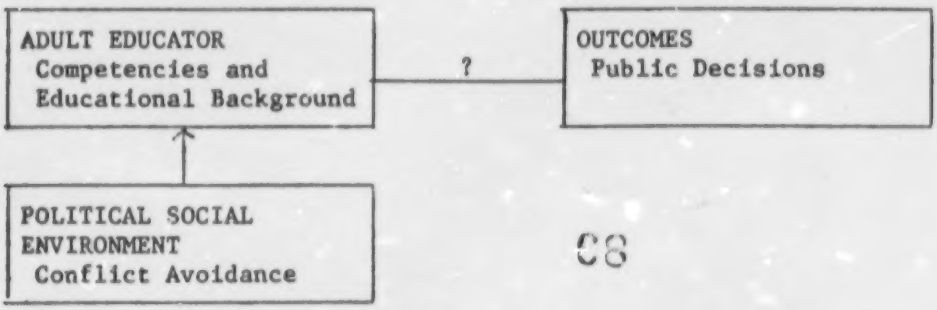
D) Are sex, educational background, and competency of adult educators related to cognitive achievement in learners when programs use different sources of funding?



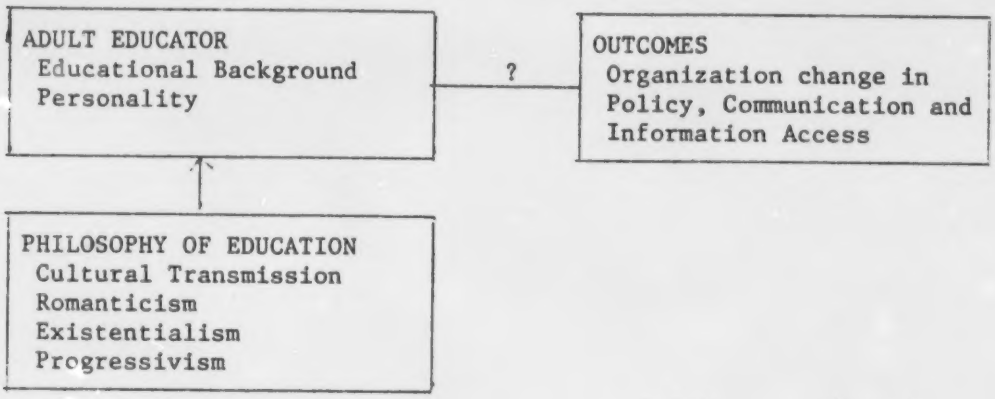
E) Are various competencies of adult educators related to affective learning outcomes in learners when adult educator professional development is obtained through self-directed learning, peer interaction, in-service education, or graduate degrees?



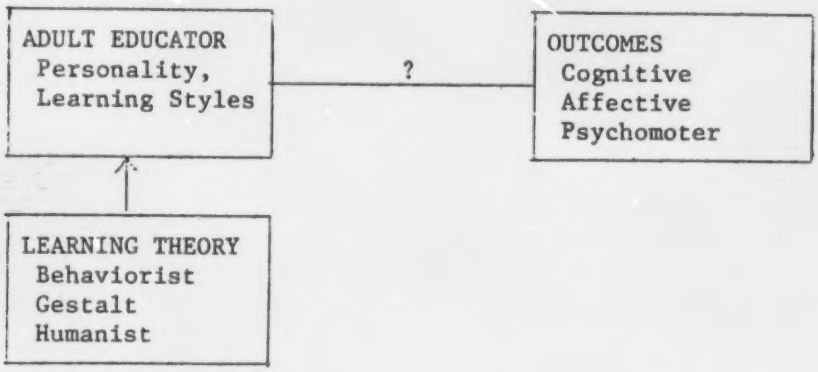
F) Are the competencies and educational backgrounds of community development adult educators related to public decision outcomes in land use planning when conflict avoidance is high in the political, cultural, and social environment of community development projects?



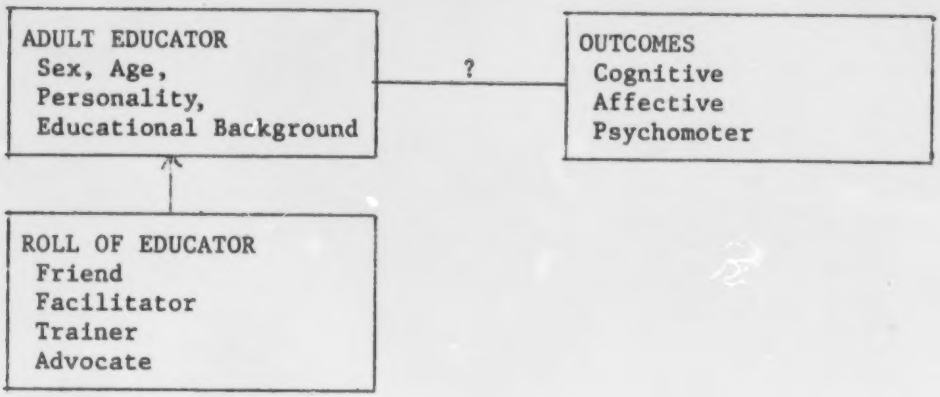
G) Are educational background and personality of adult educators related to policy change, communication change, and information access in organization development outcomes when various philosophies of education are assumed by the adult educators (cultural transmission, romanticism, existentialism, progressivism)?



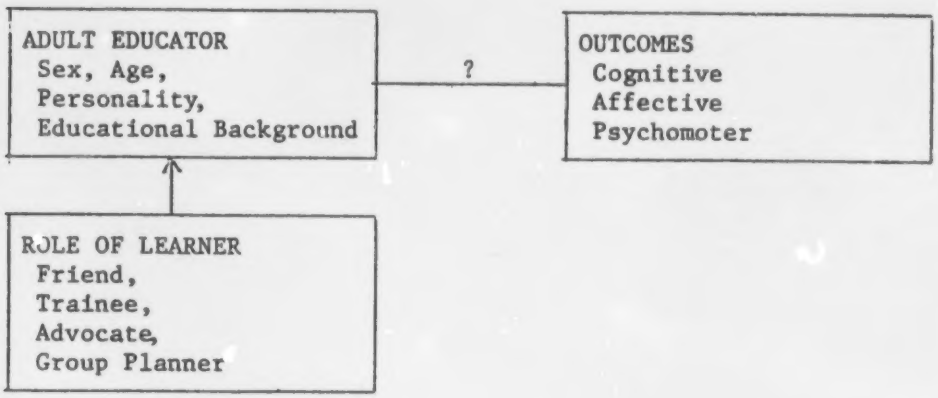
H) Are personality, learning styles, and ethnicity of adult educators related to cognitive, affective, and psychomoter outcomes in learners when the adult educators operationalize behavioralist, gestalt, or humanistic learning theories?



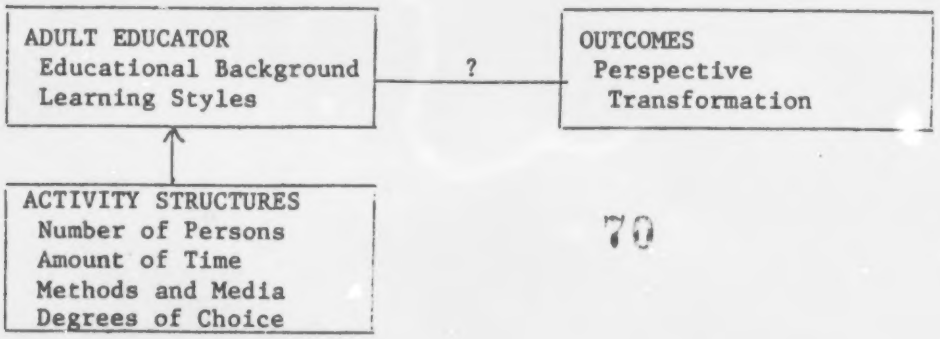
I) Are sex, age, personality, and educational background of adult educators related to cognitive, affective, and psychomoter outcomes in learners when the adult educators assume the role of friend, facilitator, trainer, or advocate?



J) Are sex, age, personality, and educational background of adult educators related to cognitive, affective, and psychomoter outcomes in learners when the learners assume the role of friend, trainee, advocate, or group planner?



K) Are educational background and learning styles of adult educators related to perspective transformation outcomes when the activity structures vary according to number of persons, amount of time, method, and degree of learner choice?



These are just a few of the possible combinations. It is recognized that these simple causal chain questions are too simplistic. What is recommended is to select variables drawn from all three of the major blocks (inputs, process, outcomes) and to include philosophy of education and learning theory as potentially relevant. The political, cultural, and social environment variable is assumed to always be relevant and essential to consider in interpreting findings. Yerka (1975) in reporting a study on the effectiveness of paraprofessionals provides an example of a study which considered input, process, and outcome variables as well as the social environment.

The examples provided above are stated as simple relationships. Further model building requires the statement of relationships in a variety of causal patterns such as: "An increase in A will produce an increase in B," or "An increase in A will produce an increase in B, C, D." The identification of unrelated variables will also assist in the discovery of causal loops of relationships.

In selecting variables, it should be noted that with the exception of self-directed learning and friends teaching friends in non-sponsored adult education, the variable 'provider organization' is likely to be included to operationalize studies involving the variable 'adult educator' (populations are typically selected according to provider organizations). The diversity of providers means that parallel or similar studies in many provider organizations should be conducted and codified since variability of findings is likely.

The saturated variable approach to the development of research models may or may not prove to be stimulating and helpful to the field of adult education research. It certainly is not the only means for the development of theory. Other building blocks include: 1) philsophical platforms; 2) primitive terms and extra scientific sources; 3) theories from other fields; 4) constructs or concepts drawn from a variety of fields including social systems; and 5) serendipity. However, there are several features which recommend working from a conceptual framework with saturated variables. First, it affords a more systematic way of scanning for variables that are worth researching and assists in raising questions concerning which variables to include. Second, it stimulates the researcher to examine and articulate assumptions regarding the selection or rejection of variables for further research. In addition, it provides a holistic and systems-oriented approach to research so that the researcher may

be less likely to commit reductionist errors or view phenomena in bits and pieces.

Meta-Analysis of Research

Another potential use of the proposed conceptual framework is as a tool in meta-analysis of research. Glass (1976, p. 3) suggests that analysis of data can occur at three levels. Primary analysis is the original analysis of data in a research study. Secondary analysis is the re-analysis of data for the purpose of answering the original research question with better methods or answering new questions with old data. Meta-analysis refers to the analysis of analysis for the purpose of integrating the findings from a large collection of studies. The need for meta-analysis of research findings in the field of education is clear. What is needed is to discover knowledge in findings -- knowledge which integrates and codifies the plethora of studies. Glass suggests that several areas in education hold promise for statistical meta-analysis. The field of adult education research, however, probably has few variable relationships that would warrant statistical meta-research. Nevertheless, what studies we do have can be classified according to variables that have been included in research, and judgments can be made about the state of accumulated knowledge concerning relationships among variables.

The proposed conceptual framework, or an alternative which others might want to substitute, makes possible the classification of research studies according to their contribution to knowledge concerning relationships among the major variables. Using this framework for meta-analysis provides for: 1) the codification of knowledge for a field; 2) the identification of variable relationships found to be unrelated; and 3) the identification of variable relationships that have been relatively unexamined or unexplored in relation to some provider organizations. Without this latter function being performed, researchers sometimes over-plow depleted farmland while rich farmland is ignored.

When the conceptual framework (p. 8) was used to identify research that had been conducted concerning the relationship of adult educators (their background and characteristics) to other variables, it was quite evident that little attention had been given to these research relationships. Surprisingly, adult educators have not listed the research topic of their own characteristics and background as a research need until quite recently. Brunner (1959, 1960) enumerated eleven categories for research needs. These categories, for the most part, included a focus on adult learners, activity structures, and provider

institutions. The characteristics of adult educators and their relationship to learner effectiveness was not included. Kreitlow (1968) listed twenty-two research needs. Of the twenty-two, four involved educator learning roles. Two focused on questions related to professional development. Again, no mention was made about researching the actual characteristics and backgrounds of those who were engaged in practice. As part of a content analysis study of research published in the journal Adult Education, Dickinson and Rusnell (1971) reported that the most significant trend between 1950 and 1970 concerned studies on adult learning characteristics (38.4% of the articles). Once again, there was little evidence that adult educators have researched themselves. However, Copeland and Grabowski (1971), in reviewing the growth of research in adult education in the U.S., did suggest adult education personnel as an important problem area for research. Simpson (1977) surveyed professors holding membership in the Commission of Professors of Adult Education of the Adult Education Association of the U.S.A., students in graduate programs, and practitioners in the state of Illinois concerning their research priorities and research activities. Based upon patterns of research activity and priorities of research problems found in the literature, and from the preferences of the needs survey, Simpson concluded that, "Two problems of priority in the area of program planning and administration are: Effective patterns of personnel and/or staffing in adult education and use of institutional resources in best meeting needs of adult learners" (1977, p. 11). The Simpson survey revealed that three professors and fifteen graduate students were engaged in research on personnel and staff problems in adult education. No attempt was made to contact these persons to determine whether these studies incorporated a consideration of the relationship of backgrounds and characteristics of educators as variables.

SUMMARY AND RESEARCH SUGGESTIONS

This paper has suggested several characteristics of the field of adult education that have influenced the productivity and development of research. A saturated variable conceptual framework has been proposed for use in generating models for further research and for use as a tool in conducting meta-research. In order to depict the use of the conceptual framework, a general research question was selected (Are learner outcomes related to adult educator backgrounds?). Examples of researchable models were portrayed. These examples were used to

point out that the study of general research questions usually includes the exploration of a variety of variable relationships. The variables proposed as relevant to adult educator characteristics in the 'input' block of the conceptual framework (p. 8) included provider organizations, characteristics of adult learners, financial and physical resources, subject matter, and professional development. Although all the variables on a saturated variable map can be viewed as theoretically relevant, it is anticipated that the most revealing findings for policy purposes will occur as a result of investigating the relationships between adult educators' backgrounds and various provider organizations, and between adult educators' backgrounds and the characteristics of adult learners. Findings from research on these relationships can best be interpreted through an appreciation of the political, cultural, and social context of each provider organization and the constituents that potentially can be served. The point of this is to determine if these background differences of adult educators and learners can account for differences in learner outcomes.

It is assumed that the conceptual framework can be used in either a deductive approach to research (for formulating models that can be used for data collection) or in an inductive approach to research (for assisting in the analysis of inductively collected data). Quantitative research is often associated with deductive theory testing, while qualitative research is associated with inductive theory building. However, Rist (1977) suggests that a new detente between the two modes might be possible as researchers using each begin to realize the utility of combinations since each approach can complement the limitations of the other in relation to reliability and validity.

It also is assumed that a variety of research approaches will benefit the field. For instance, sociological studies of adult education could focus on the effects of class structure on provider organizations, the selection of adult educators, and on the types of adult students served. The role of adult education in providing upward social mobility and social legitimization could be studied using allocation theory. Anthropological studies of adult education also could focus on understanding relationships among social, cultural, and ethnic environments, provider institutions, and the selection of adult educators. Political science approaches could assist in furthering our understanding of the politics and funding patterns of adult education. Environmental psychological approaches could help us recognize the effect of the social climate of

provider organizations on learners. The work of Moos (1974) on community-oriented environment scales could be used in these types of studies. Policy evaluation studies could focus on alternative program delivery, as well as on social impact projections for alternative funding patterns. Longitudinal studies on the cumulative effects of adult education on different populations could be conducted by extending research into the adult years through the use of the sample used for the past 15 years to study the longitudinal effects of early childhood education. Methodological studies on how best to assess the competence of adult educators or the learning outcomes of adult learners should be encouraged. Schwind (1977) and Ellis (1978) provide examples of this type of work.

This paper has recommended a wide array of research approaches, variables thought to be relevant, and models that can be tested. This has been deliberately eclectic, since the problem posed is not one that is easily addressed by a single explanation. Given the state of research in adult education, a modest hope has been put forth that future research efforts will be more theoretically oriented, interdisciplinary based, and integrated into a research tradition.

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